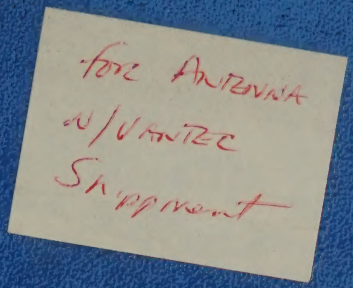
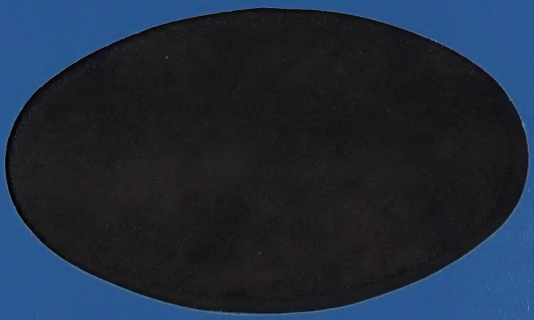


Instruction Manual

MODEL 8005
EARTH STATION ANTENNA

Scientific Atlanta



Instruction Manual

MODEL 8005
EARTH STATION ANTENNA

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When ordering parts from Scientific-Atlanta, Inc., be sure to include the equipment model number, equipment serial number, and a description of the part.

Model No.
Serial No.

In all correspondence with Scientific-Atlanta, Inc., regarding this publication, please refer to

25A0911

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Europe: Horton Manor, Stanwell Road, Horton, Slough SL3 9PA, England; Telephone Colnbrook (02812) 3211; Telex 849406

IMPORTANT!

Read the following before attempting to install your Earth Station Foundation.

1. **Antenna Type/Centerline:**

   The foundation for your earth station antenna must be oriented on a specific heading (centerline). The foundation heading for a specific site and antenna model is unique for that combination. A change in either location **OR** antenna model will change the heading. With most Scientific-Atlanta antennas, the foundation heading is **NOT** the centerline of satellite arc coverage (centerline of antenna travel). Please obtain or verify all foundation heading information with Scientific-Atlanta, Inc.

2. **Azimuth Headings:**

   All azimuth headings, including the foundation heading, unless otherwise noted are headings in degrees clockwise from **TRUE** north. When employing a compass to obtain these headings you **MUST** correct for local magnetic declination. (Refer to your antenna installation manual for assistance or contact Scientific-Atlanta at the numbers listed below.)

3. **Foundation Data:**

   Since soil conditions, building codes and other factors vary among various localities, those installing antenna mounts are cautioned to secure professional engineering services for the design and construction supervision of antenna mount foundations. Scientific-Atlanta does not warrant that any particular design or size of foundation is appropriate for any particular locality or installation.

If you have any further questions regarding the installation and operation of your Scientific-Atlanta earth station equipment, please contact:

Applications Engineering
Video Communications Division
Scientific-Atlanta, Inc.

(404) 925-5948
(404) 925-5846
(404) 925-5902

5/16 hardware
18 x 1

Scientific-Atlanta thanks you for your interest in our earth station products and looks forward to working with you.

25A0911

ADDENDUM

Model 8005 4.6-Meter Earth Station Antenna Instruction Manual
Publication Number 25A091H

This Addendum covers assembly and the final tightening sequence of the Model 8026 Mount. Prevailing torque nuts are now supplied for the four (4) U-bolts in the mount.

Refer to Section 5, paragraph 5-4, page 5-9. Final Tightening Sequence, steps 4 through 7, and use the prevailing torque nuts as follows:

> Tighten the two U-bolt nuts until there is no looseness in the joint. The U-bolt should be tapped with a hammer to assure that it is fully seated. The eyebolt(s) should be held firmly against the node bracket or strut terminator by the U-bolt. Now tighten each nut one-third to one-half turn more.

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SECTION 1
GENERAL INFORMATION

1.1 INTRODUCTION

This manual describes Scientific-Atlanta's Model 8005 Earth Station Antenna, a 4.6-meter-diameter antenna which provides an economical capability for reception of geosynchronous satellite transmissions in the 3.7- to 4.2-GHz frequency range. Transmit capability is available as an option.

Instructions for installation, position adjustment, and maintenance are also provided in this publication and are supported by photographs, parts lists, and drawings. The complete antenna assembly is shown in figures 1-1, 7-1, and 7-2.

1.2 GENERAL DESCRIPTION

The standard Model 8005 antenna consists of a 4.6-meter-diameter paraboloidal main reflector; a shaped, quasi-hyperboloidal subreflector; and a linearly polarized, receive-only, diagonal-horn feed on a single axis mount. The antenna's subassembly model designations are listed below.

- Model 8125 4.6M Parabolic Reflector (figure 7-5)
- Model 8227S Subreflector (figure 7-9)
- Model 8227SP Single-Polarization, Receive-Only Feed (figure 7-8)
- Model 8026 Mount (figure 7-6)

The optional feeds are:

- Model 8227DP Dual-Polarization, Receive-Only Feed
- Model 8227RT Orthogonal-Polarization, Receive/Transmit Feed (future option)

P10627

Figure 1-1. Model 8005 Earth Station Antenna

The Model 8125 4.6-Meter Reflector consists of 12 precision-stamped, aluminum sections, three of which have a small slot to accommodate the subreflector spar attachment tab. These 12 sections are bolted together in the field to form the parabolic surface of revolution. This particular design provides a very low shipping volume, allowing the antenna to be packaged so that the largest part, including the panels, can fit in a freight elevator. The antenna is suitable for either rooftop or ground level installation.

The Model 8026 Mount provides simple, one-axis adjustment for sweeping the antenna across the satellite orbital arc for satellite acquisition. (Some second-axis adjustment may be required for peaking the signal onto a particular satellite.)

The standard mount assembly will provide coverage of satellites located from 90° to 136° west longitude from anywhere in the contiguous United States in one sector providing the local foundation heading is proper. The telescoping leg assemblies provided allow the user to choose which sector the single axis adjustor will cover during initial installation. If, at a later date, the user wishes to operate in the alternate sector, he may order an optional telescoping adjustor assembly to replace the adjustor initially installed.

Some locations in the United States require an optional front foot and optional adjusting struts to provide coverage of the 70°-to-90° west longitude arc.

The technical characteristics of the Model 8005 Earth Station Antenna are shown in table 1-1.

TABLE 1-1. MODEL 8005 ANTENNA TECHNICAL CHARACTERISTICS

Characteristic	Specification
	Electrical
Operating Frequency	3.7 to 4.2 GHz
Antenna Gain	43.5 dBi at 4 GHz
Half-Power Beamwidth	1.1° nominal
Voltage Standing Wave Ratio	1.3:1 maximum

TABLE 1-1. MODEL 8005 ANTENNA TECHNICAL CHARACTERISTICS - continued

Characteristic	Specification
Polarization	Linear
Polarization Adjustment	360° continuous
Isolation (Port-to-Port)	30 dB minimum for dual linear operation
First Sidelobe	-14 dB
Noise Temperature	19°K at 30° elevation
Radiation Patterns	(32-25 log θ) dBi $1° \leq \theta \leq 48°$
Averaged Sidelobe Envelope	-10 dBi $48 \leq \theta \leq$
Cross Polarized Suppression	35 dB minimum on axis
Environmental	
Wind Resistance	
Full Performance	Holds pointing to within 0.16° rms in 96 km/h winds gusting to 137 km/h.
Survival	177 km/h from any direction or 137 km/h with 2 inches radial ice
Temperature Range	
Full Performance	-20°C to +50°C
Survival	-40°C* to +55°C
Ice	
Full Performance	0.6 cm radial
Survival	2.5 cm radial
Solar	110 mW/cm^2
Salt Atmosphere	As encountered in coastal regions
Industrial Pollutants	As encountered in industrial areas
Corrosive Contaminants	As encountered in industrial areas
Mechanical	
Antenna Diameter	4.6 meters
Panel Material	Aluminum, 0.090-inch thickness
Mount Type	Single axis
Satellite Coverage	Any satellite located between 70° and 136° west longitude from anywhere in the U.S. without foundation changes.

*Not taken simultaneously with wind

TABLE 1-1. MODEL 8005 ANTENNA TECHNICAL CHARACTERISTICS - continued

Characteristic	Specification
	Note Standard mount travel is for satellites from 90° to 136° west longitude. Optional travel kits are available for covering the 70°-to-90° west longitude arc.
Weight	Net: 1,300 lbs (590 kg) Shipping: 2,300 lbs (1,043 kg)
Shipping Volume	200 ft^3

SECTION 2
FOUNDATION CONSTRUCTION

2.1 GENERAL

The foundation forms an essential element of the total installation. The foundation must withstand the maximum loads, be oriented so that the desired pointing angles can be achieved, and be stiff enough to maintain the proper pointing angle.

2.2 FOUNDATION STRUCTURAL REQUIREMENTS

The antenna is designed to be safety supported in winds up to 177 km/h (110 mi/h). This is the highest speed wind 30 feet above the ground in the contiguous 48 states on a 50-year mean recurrence interval. The reaction loads on the foundation for a 177 km/h survival wind are 3856 kg (8,500 lbs) on any one leg in the vertical direction, and 4717 kg (10,400 lbs) on any one leg in the horizontal direction. It is imperative that competent engineering assistance be engaged to assure that the foundation is properly designed for these maximum loads and the local building codes. As an assistance, a typical foundation plan (figure 7-3) is included; however, Scientific-Atlanta does not represent or warrant that any particular design or size of foundation is appropriate for any particular locality or installation.

The pointing accuracy of the installed antenna is determined by the stiffness of the antenna and the stiffness of the foundation. It is recommended that the foundation be designed for a maximum tilt of 0.2° when the 110 mi/h loads are applied.

Scientific-Atlanta offers Model 8011 Foundation Kits which, depending on the site requirements, can be installed to meet 80 mi/h or 110 mi/h wind loads.

Use of the foundation kit(s) has the advantage of requiring only one trip to the site, and usually the entire earth station installation can be done in a single day.

The foundation kit(s) is installed in only five steps:

1. Foundation centerline is determined and shot.
2. Foundation kit is assembled.
3. Foundation leg assembly holes are located and drilled.
4. Foundation is positioned and lowered into place.
5. Foundation is leveled and concrete poured.

Once the foundation is installed, the antenna can be assembled immediately, but the antenna should not be erected before a ten hour period has elapsed. For detailed instructions on installation of Model 8011 Foundation Kits, refer to Instruction Manual on Model 8011 Foundation Kits.

For additional information, including ordering and pricing information, contact your Scientific-Atlanta sales representative.

2.3 FOUNDATION HEADING

The foundation heading required for any specific site in the contiguous United States can be calculated from the graphical data provided in figure 2-1. The design of the system is such that no change in foundation is required to accommodate satellites located from 70° to 136° west longitude from any location in the United States, although certain mid-western locations require raising the front foot of the antenna so that satellites east of 90° west longitude can be reached without having a ground interference with the antenna. Contact the factory for this option.

The foundation heading is established by the placement of the anchor bolts. Carefully follow the directions below to orient the antenna correctly on the foundation.

2.3.1 Calculating the Foundation Heading

Refer to figure 2-1 and follow the example provided to calculate the foundation heading required for the site location.

Note

To calculate the foundation heading, refer to figure 2-1 only.

2.3.2 Adjusting for Magnetic Declination

Since the magnetic poles of the earth are not located at the geographic poles, a horizontal angle called "declination" or "variation" results between magnetic north as read on a compass and geographic (or true) north. Engineering calculations are referenced to true north, and the compass reading in any location must always be adjusted for local declination.

Declination varies many degrees across the continental United States. The correct declination for the immediate location of concern can be found by:

1. referring to the topographic quadrangle map published by the U.S. Geological Survey.
2. referring to the Jeppesen or FAA charts for any airport in the immediate vicinity.
3. telephoning the local office of the State Department of Natural Resources, the Geological Survey, or the Weather Bureau (meteorological office).

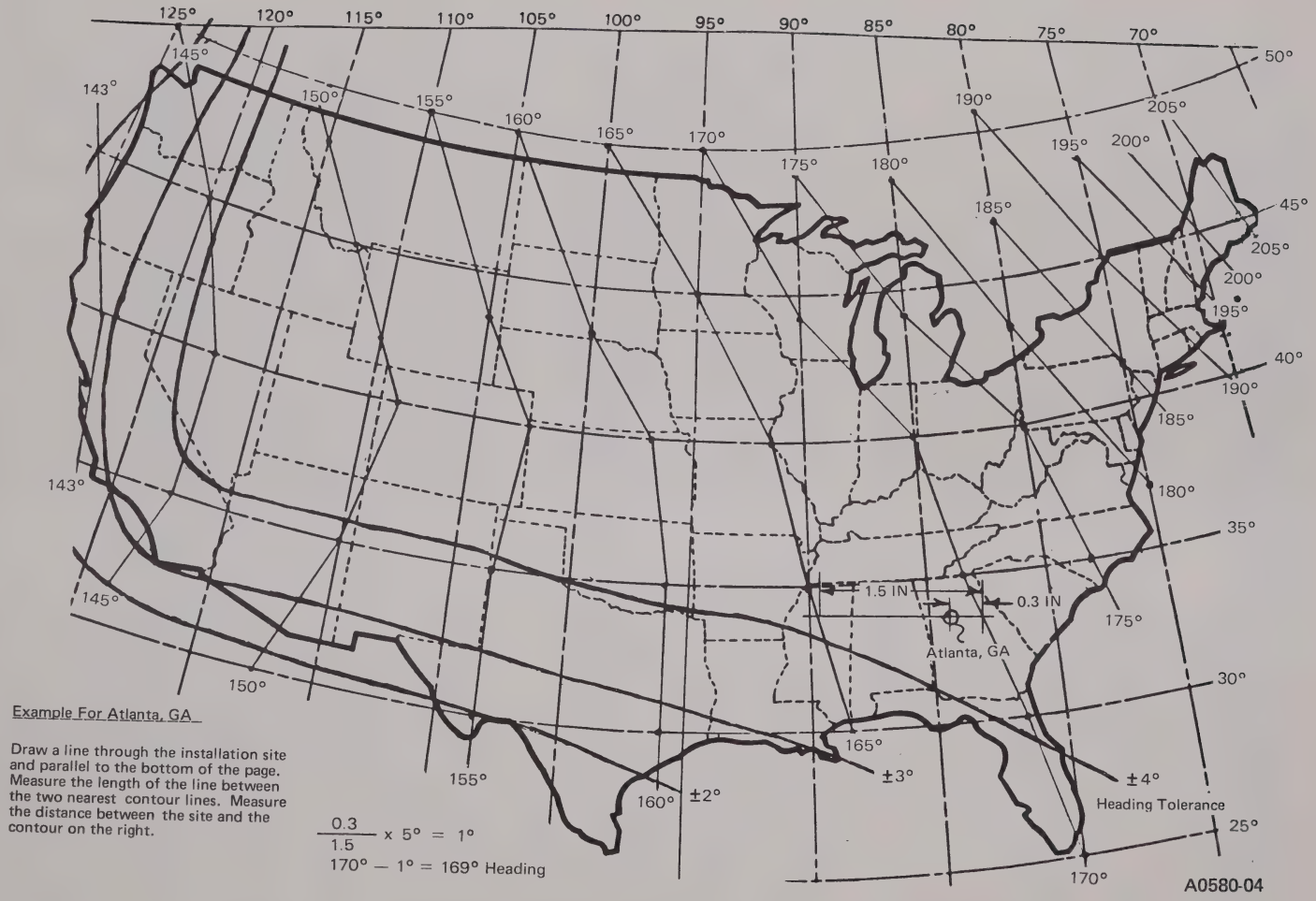
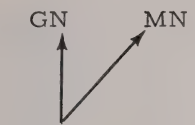
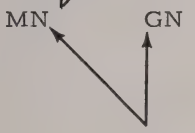

125° 120° 115° 110° 105° 100° 95° 90° 85° 80° 75° 70°
145° 143° 150° 155° 160° 165° 170° 175° 180° 190° 205° 195° 200° 185°
50° 45° 40° 35° 30° 25°
1.5 IN
0.3 IN
Atlanta, GA
Example For Atlanta, GA
Draw a line through the installation site and parallel to the bottom of the page. Measure the length of the line between the two nearest contour lines. Measure the distance between the site and the contour on the right.
0.3 / 1.5 x 5° = 1°
170° — 1° = 169° Heading
±2°
±3°
±4°
Heading Tolerance
A0580-04

Figure 2-1. Model 8005 Earth Station Antenna Foundation Headings
(Note: Area Above ±4° Contour has ±5° Heading Tolerance)

Declination is expressed in terms of degrees east or west (sometimes + or -).

A map indication of 

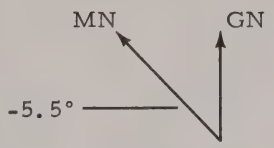
means "east" or "plus"

A map indication of 

means "west" or "minus"

The positive or negative declination for the locality must be algebraically subtracted from the desired true heading to obtain the corrected compass heading.

For example:

Your map for a site shows: 

Assume you want a true heading of 180° for your foundation centerline. Your compass reading should be: compass = true - declination

Compass = 180° - (-5.5°)

Compass = 185.5°

2.3.3 Positioning the Anchor Bolts

The centerline running from the front anchor bolt through the mid-point of the line connecting the two rear anchor bolts (figure 2-2) must be along the heading calculated for the site. Refer to figures 7-3 and 7-4 for details of the anchor bolt installation.

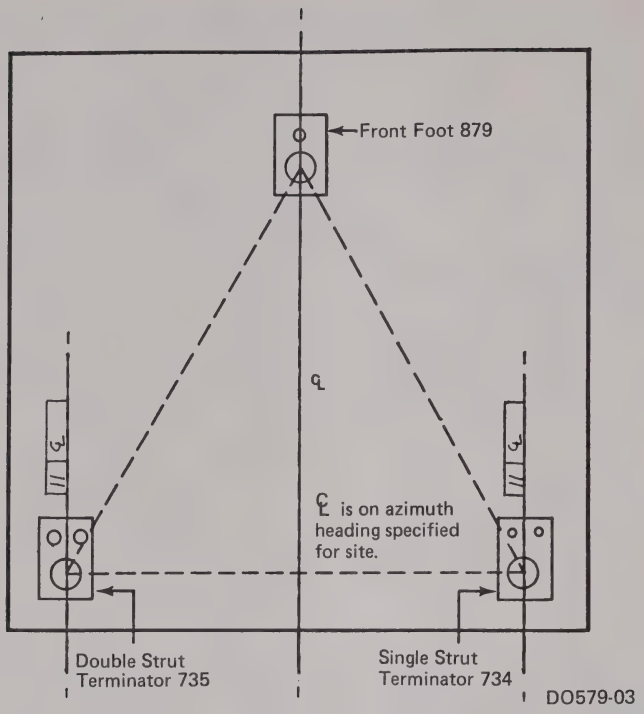


Figure 2-2. Alignment of Mounting Feet

SECTION 3
PREPARATION FOR INSTALLATION

3.1 GENERAL

The installation of the antenna can be divided into four stages:

1. Preparation
2. Reflector Assembly (for erection by powered lifting device)
3. Reflector Erection/Mount Assembly (using powered lifting device)
4. Subreflector and Feed Installation

The entire assembly procedure using a powered lifting device is presented in section 4.

The antenna is assembled in a horizontal position with the concave surface pointing up. The reflector is attached to the front foot of the mount at the beginning of assembly and is assembled on the foundation.

The proper pointing angles are set during erection by adjusting the legs to the lengths specified by Scientific-Atlanta for the site location. Should an alternate satellite be selected at some future date, the pointing angles of the antenna can be reset by readjusting the leg lengths.

The total weight of the antenna is 1300 pounds. A light-duty crane or a heavy-duty bucket truck is sufficient to hoist the reflector with the legs attached.

CAUTION

Do not attempt to erect the antenna in winds exceeding 30 mi/h.

3.2 UNPACKING AND INSPECTION

While unpacking, carefully compare the equipment received with the packing list in table 3-1, checking for transit damage at the same time. Should errors be noted, notify Scientific-Atlanta and the carrier as soon as possible, but only after looking through the packing material carefully.

Table 3-1 is a complete packing list for the Model 8005 Earth Station Antenna showing the contents of each crate. This list has been prepared for the antenna configuration using the standard U.S. mount (Model 8026). If the antenna purchased is configured with one of the optional mounts listed below, the packing list will be slightly different. In those cases, the crate contents should be checked against the shipping list received with the antenna.

Model 8026A Mount	U. S. mount used with Model 8011 Foundation Kit
Model 8026B Mount	Standard Canadian mount
Model 8026C Mount	Canadian mount used with Model 8011 Foundation Kit

TABLE 3-1. PACKING LIST FOR MODEL 8005 EARTH STATION ANTENNA WITH MODEL 8026 MOUNT

Crate No.	Contents	Part No.	Quantity
1	Standard Panels	211875	5
	Decal Panel	213163	1
	Feed	211771	1
	LNA Shield	212625 DP Only	1
2	Standard Panels	211875	3
	Spar Panels	211878	3
	Subreflector	213165	1
	Support, Subreflector	211887	1
	Mounting Ring	211737	1

TABLE 3-1. PACKING LIST FOR MODEL 8005 EARTH STATION ANTENNA WITH MODEL 8026 MOUNT - continued

Crate No.	Contents	Part No.	Quantity
3	Mount, Backing Structure (Painted)		
	Back Structure - A1	211861	3
	Back Structure - B1	211862	3
	Back Structure - C3	211863	6
	Back Structure - F4	211865	3
	Back Structure - E4	211866	3
	Back Structure - G5	211867	3
	Back Structure - J2	211870	12
	Spar, Subreflector	211891	3
	Node NA	212564	1
	Node NB	212565	1
	Node NC	212566	1
4	Mount, Backing Structure (Galv.)		
	Foot, Single Term.	211734	1
	Foot, Front	211879	1
	Foot, Double Term.	211735	1
	Leg A, 71.5, Blue	211991	1
	Leg A, 71.5, Blue	211994	1
	Leg A, 61.5, Green	211992	1
	Leg A, 61.5, Green	211993	1
	Leg A, 81.5, Red	211996	1
	Leg A, 81.5, Red	211995	1
	Back Structure K6	211874	3
	Adjustment Mechanism	212571	1
	Model 8125 Hardware Kit	211790	1
	Model 8026 Hardware Kit	211791	1
	Model 8227DP Hardware Kit	211793	1
	Model 8227S Hardware Kit Small Parts Kit	212580	1
5	Corrosion Prevention Kit	163476	1
6	Anchor Bolts	212589	1

3.2.1 Damage or Loss During Shipment

When equipment is damaged or lost in transit, the delivering transportation company is required by law to make notation of damage or loss on the freight bill. The carrier and not the shipper should be charged with all damage or loss. In the event of damage or loss during shipping, contact the responsible carrier of the equipment. Save the shipping carton. The inspector must examine the carton prior to completion of the inspection report.

3.2.2 Equipment Return

Scientific-Atlanta makes a genuine effort to ensure that all items arrive safely and in working order. Occasionally, despite these efforts, equipment will be received which is not in working condition. When this occurs and it is necessary to return the equipment to the manufacturer for either repair or replacement, or when operational equipment requires repair, the return can be expedited if the following procedure is followed:

1. Tag or identify the defective equipment and note the defect and circumstances, if any.
2. Reference the sales order and purchase order and the date the equipment was received.
3. Notify Scientific-Atlanta's Customer Service Department of the defect and request shipping instructions.

3.3 TOOLS AND FASTENERS

The tools required for assembly of antenna are listed in table 3-2.

Note

A 1-7/8-inch deep well socket can be used to tighten the nuts on the anchor bolts when the mounting feet are installed.

TABLE 3-3. FASTENER IDENTIFICATION - continued

S-A Part No.	Name	Description	Quantity
83457	Nut	10-32	4
86084	Nut	1-1/4-7	2
88165	Washer	No. 10, lock, split	5
88166	Screw	5/16-18 x 1-1/4	7
88513	Screw	5/16-18 x 1 in	162
88514	Screw	3/8-16 x 1 in	7
88515	Screw	1/2-13 x 1-1/2 in	8
88516	Screw	1/2-13 x 1-3/4 in	12
88517	Nut	5/16-18	155
88518	Nut	1/2-13	27
88519	Washer	5/16 in	323
88520	Washer	3/8 in	7
88521	Washer	1/2 in	51
88523	Screw	10-32 x 3/4	4
88525	Screw	1/2-13 x 1 in	10
88527	Screw	1/2-13 x 2 in	2
88528	Screw	1/2-13 x 5 in	7
88529	Screw	1-8 x 2-1/2 in	2
88532	Nut	3/4-10	5
88533	Nut	1-8	4
88534	Nut	1-1/8-7	5
88535	Washer	No. 10-0.29	5
88537	Washer	3/4 in	8
88538	Washer	1 in	5
88539	Washer	1-1/8 in	5
88541	Screw	10-24 x 3/8 in	5
88711	Nut	1/4-20	1
88712	Washer	1-1/4 in	2

TABLE 3-3. FASTENER IDENTIFICATION - continued

S-A Part No.	Name	Description	Quantity
211803	Clevis Pin		1
211999	Eyebolt	1-8	6
212057	U-bolt	3/4 in	2
212058	U-bolt	1-1/8 in	2
213106	Screw	1/4-20 x 5/8, pan head, longitudinal bore	2
	Foundation Assembly		
71518	Nut	1/2-13	13
72652	Screw	1/2-13 x 1-1/2 in	13
73286	Washer	1/2 in	26

3.4 INSTALLATION OF MOUNTING FEET

Refer to figure 3-1 when installing the front foot and the two strut terminators (rear feet).

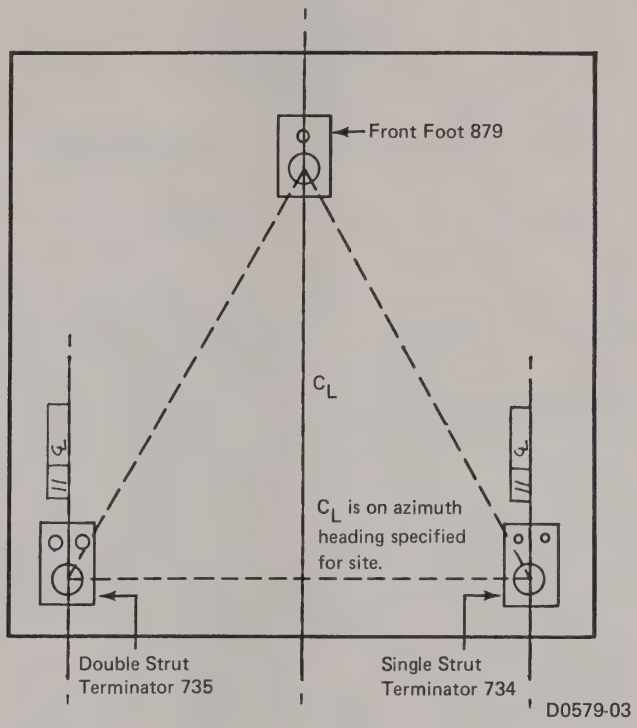


Figure 3-1. Alignment of Mounting Feet

1. Install front foot 879 over the front anchor bolt so that the one-inch diameter hole is directly in front of the anchor bolt. Use a flat washer (88712) and tighten down a nut (86084) on the anchor bolt to 500 ft-lbs. (For turn-of-nut method, torque the nut one-half turn ±30° beyond snug tight.) Use the deep well socket described in paragraph 3.3 to tighten the anchor bolts. These bolts can also be tightened with a 1-7/8-inch combination wrench. This installation is shown in figure 3-2.

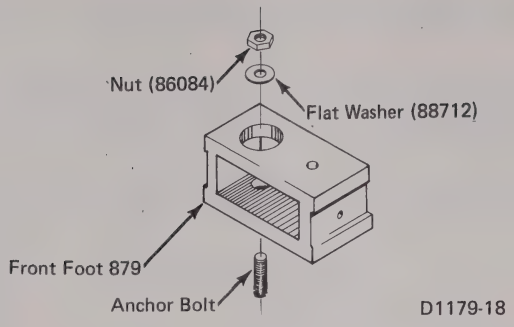


Figure 3-2. Installation of Front Foot 879

2. Place double strut terminator foot 735 on the eastern rear anchor bolt and single strut terminator foot 734 on the western rear anchor bolt. Align the rear feet so that the double hole patterns for the U-bolts are forward of the anchor bolts and the feet are parallel to the front foot. Use the same nuts and flat washers called out in step 1 to secure the strut terminators to the anchor bolts. Tighten to 500 ft-lbs or one-half turn ±30° beyond snug tight using the deep well socket or the 1-7/8-inch combination wrench. The installation of double strut terminator foot 735 is shown in figure 3-3.

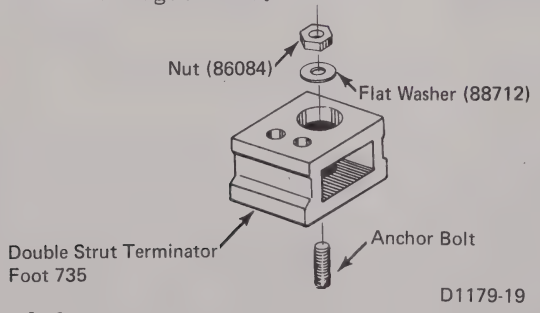


Figure 3-3. Installation of Double Strut Terminator Foot 735

Note

"Snug tight" is defined as the tightness attained by a few impacts of an impact wrench or the full effort of a man using an ordinary spud wrench.

The installation of single strut terminator 734 is shown in figure 3-4.

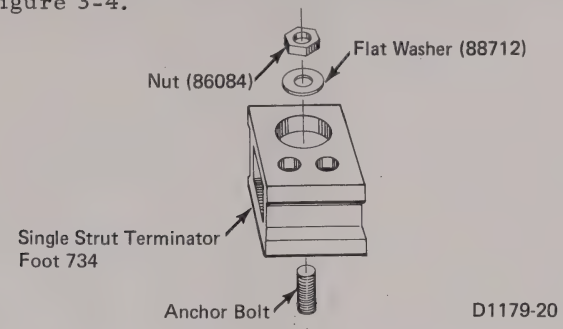


Figure 3-4. Installation of Single Strut Terminator Foot 734

3. Attach the upper and lower king post clevis assemblies to the front foot as shown in figure 3-5.

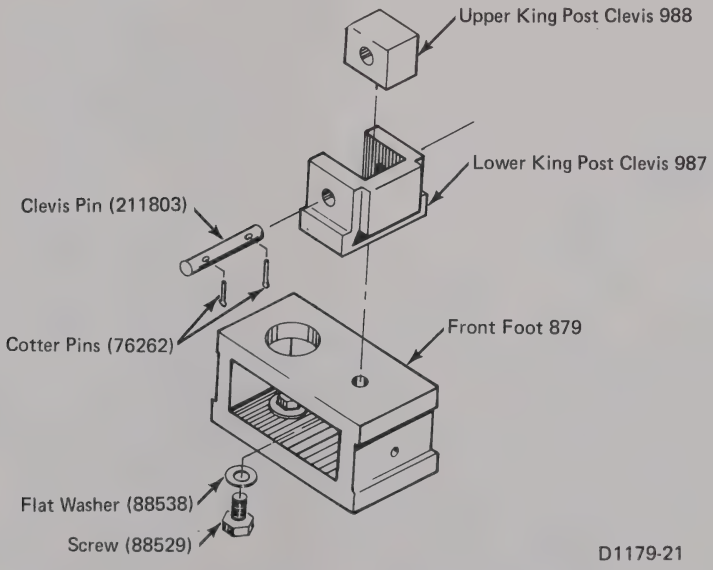


Figure 3-5. Installation of Front Foot Clevis

The lower king post clevis 987 is attached to the front foot with a screw (88529) and flat washer (88538). Do not torque this screw at this time. The upper king post clevis 988 is attached to the lower king post clevis by the clevis pin (211803) and two cotter pins (76262).

SECTION 4
ANTENNA INSTALLATION WITH POWERED LIFTING DEVICE

4.1 GENERAL

As noted previously, the antenna is assembled in a horizontal position with the concave surface pointing up. Figure 4-1 shows the completed backing structure and reflector. Before beginning assembly, study figure 4-1 and its relationship to the details shown in other illustrations.

Figure 4-1. Model 8005 Antenna - Rear View

It is assumed that a crew of at least three workers who are familiar with and make use of safe mechanical assembly techniques will be employed. The heaviest single pieces of the Model 8005 4.6-Meter Antenna are the telescoping leg assemblies. These parts can be carried by two people and one person can handle all other antenna parts without assistance. Once the foundation is prepared, the entire assembly/erection procedure can normally be completed in one day.

Note

An appointed supervisor, who is responsible for the safety of personnel, must be present at all times during assembly of the antenna.

CAUTION

Do not attempt to erect the antenna in winds exceeding 30 mi/h.

Detailed assembly instructions are provided in this section. In addition to the photographs and detail drawings used to illustrate the assembly steps, the drawings and parts lists in section 7 will also be useful.

Note

In the assembly instructions that follow, each member will be referred to by the last three digits of the part number. Each major member is stamped with its part number for ease of identification.

4.2 BACKING STRUCTURE - PARTS IDENTIFICATION

The following parts list provides detailed illustrations of individual members of the backing structure. Associated attaching hardware are packaged and can be identified according to S-A part number (table 3-3). Refer to figure 4-2 for orientation of interrelated parts.

Component	Qty	Description
0211737	1	Mounting R
0211860	3	Member N
0211861	3	Member N
0211862	3	Member N
0211863	6	Member N
0211865	3	Member N
0211866	3	Member N
0211867	3	Member N
0211868	9	Member N
0211869	9	Member N
0211870	12	Member N

Illustration

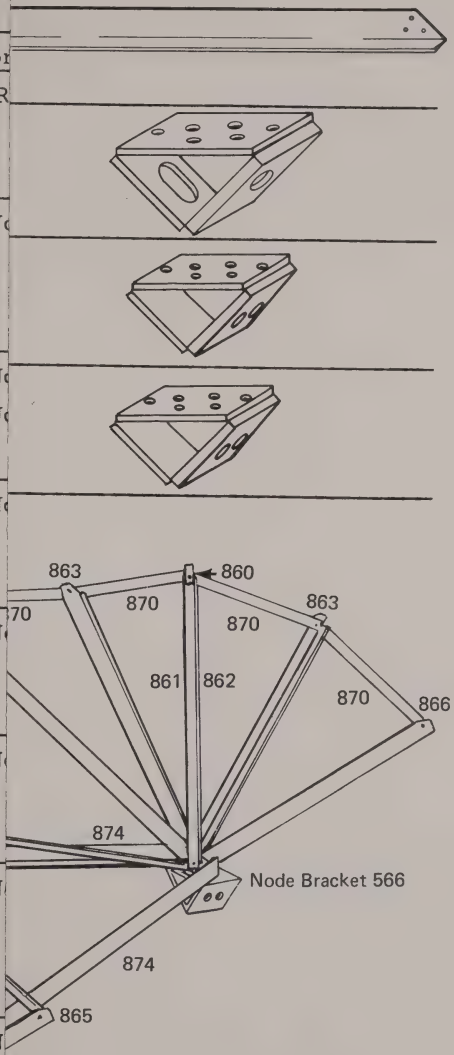


Figure 4-2. Model 8005 Antenna - Backing Structure (Overview)

It is assumed that a crew of at least three workers who are familiar with and make use of safe mechanical assembly techniques will be employed. The heaviest single pieces of the Model 8005 4.6-Meter Antenna are the telescoping leg assemblies. These parts can be carried by two people and one person can handle all other antenna parts without assistance. Once the foundation is prepared, the entire assembly/erection procedure can normally be completed in one day.

Note

An appointed supervisor, who is responsible for the safety of personnel, must be present at all times during assembly of the antenna.

CAUTION

Do not attempt to erect the antenna in winds exceeding 30 mi/h.

Detailed assembly instructions are provided in this section. In addition to the photographs and detail drawings used to illustrate the assembly steps, the drawings and parts lists in section 7 will also be useful.

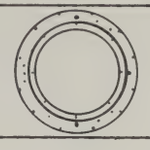
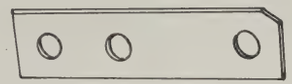
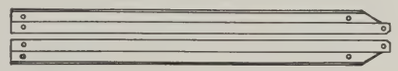
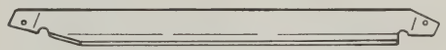
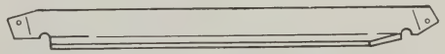
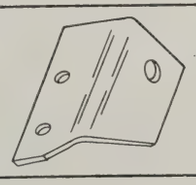
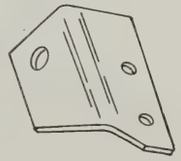
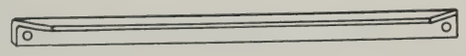
Note

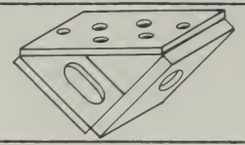
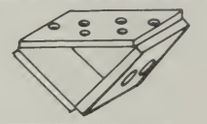
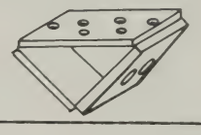
In the assembly instructions that follow, each member will be referred to by the last three digits of the part number. Each major member is stamped with its part number for ease of identification.

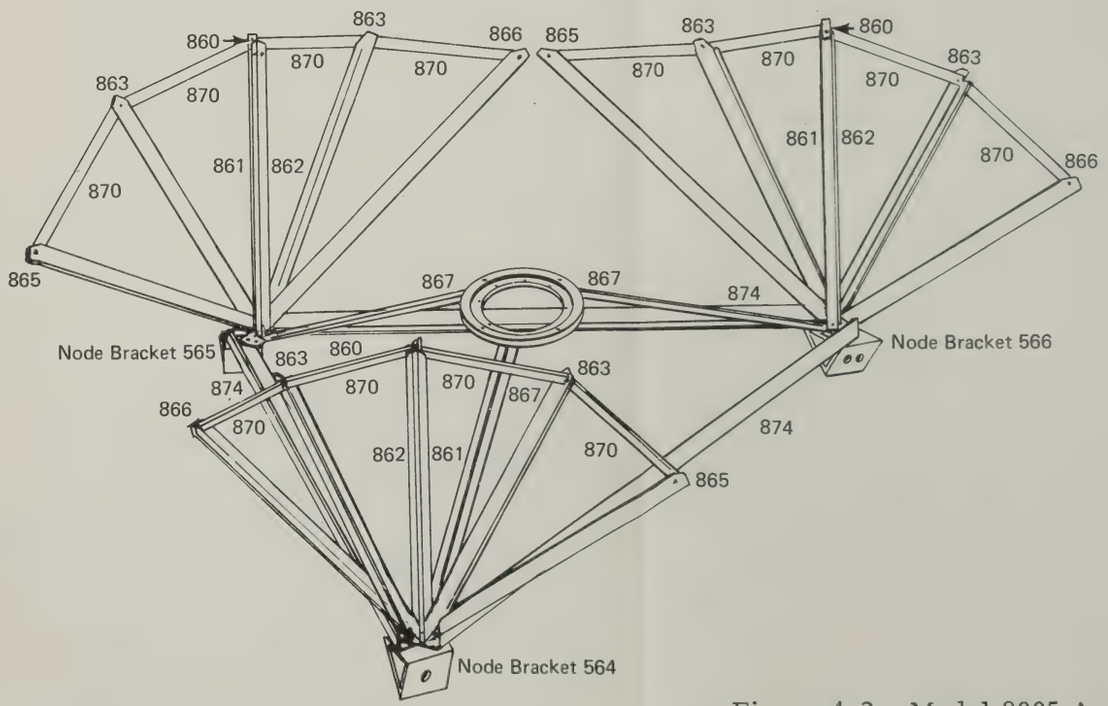
4.2 BACKING STRUCTURE - PARTS IDENTIFICATION

The following parts list provides detailed illustrations of individual members of the backing structure. Associated attaching hardware are packaged and can be identified according to S-A part number (table 3-3). Refer to figure 4-2 for orientation of interrelated parts.

ILLUSTRATED PARTS LIST FOR BACKING STRUCTURE

Component	Qty	Description	Illustration
0211737	1	Mounting Ring	
0211860	3	Member No. D7	
0211861	3	Member No. A1	
0211862	3	Member No. B1	
0211863	6	Member No. C3	
0211865	3	Member No. F4	
0211866	3	Member No. E4	
0211867	3	Member No. G5	
0211868	9	Member No. I1	
0211869	9	Member No. H1	
0211870	12	Member No. J2	

Component	Qty	Description	Illustration
0211874	3	Member No. K6	
0212564	1	Node Bracket NA	
0212565	1	Node Bracket NB	
0212566	1	Node Bracket NC	



A0580-06

Figure 4-2. Model 8005 Antenna - Backing Structure (Overview)

4.2.1 Node Brackets and 874 Members

Refer to figure 4-3 for orientation of node brackets 564, 565, and 566 and 874 members.

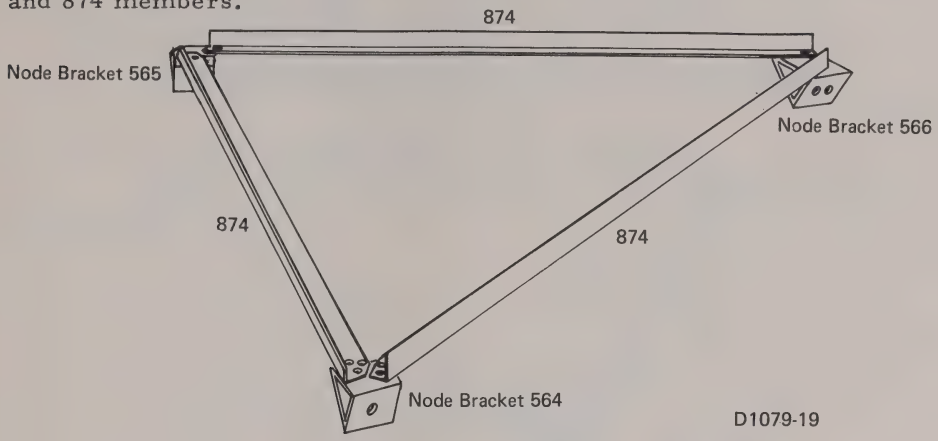


Figure 4-3. Backing Structure Assembly - Orientation of Node Brackets 564, 565, and 566 and 874 Members

Note

Be certain, before beginning the assembly, that the node brackets are located at the correct corners of the triangle of 874 members and that they are correctly oriented.

1. Attach node bracket 564 to the upper clevis installed on the front foot as shown in figure 4-4.

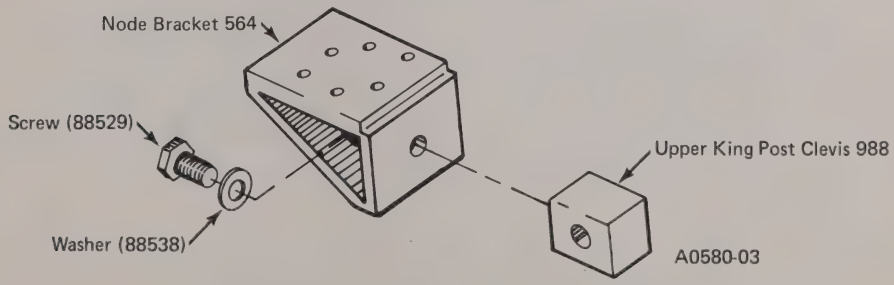


Figure 4-4. Attachment of Node Bracket 564 to Upper King Post Clevis 988

Secure the node bracket to the clevis with a screw (88529) and a washer (88538), tightening to snug tight with a 1/2-inch drive torque wrench and extension. Lay node brackets 565 and 566 and the 874 members out on the foundation oriented as shown in figure 4-5. Level the 874 members with stable supports placed near the nodes as shown in figure 4-5.

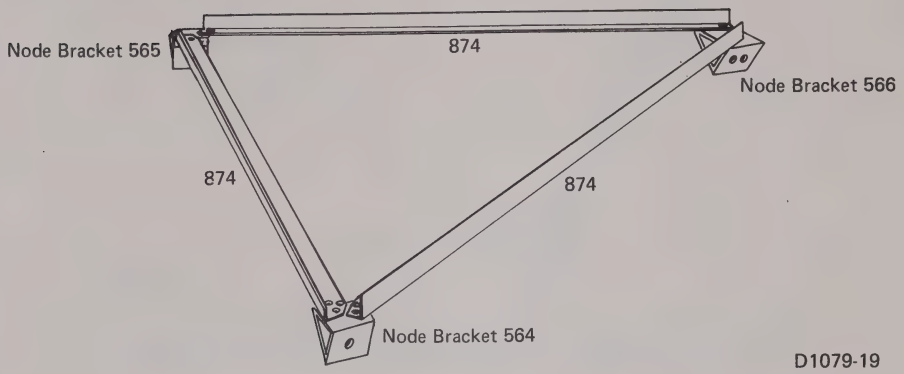


Figure 4-5. Backing Structure Assembly - Orientation of Node Brackets 564, 565, and 566 and 874 Members (Repeat)

WARNING

THE ASSEMBLY SUPERVISOR MUST ENSURE THAT SUPPORTS ARE STABLE AND SUCH THAT THEY CANNOT BE KICKED OUT CAUSING THE ANTENNA TO DROP.

2. Place node brackets 565 and 566 under the 874 members as shown in figure 4-5. Line up the holes of the 874 members with those of the node brackets and install the screw nearest the angle of the 874 member on each side of each node bracket as shown in figures 4-6 and 4-7.

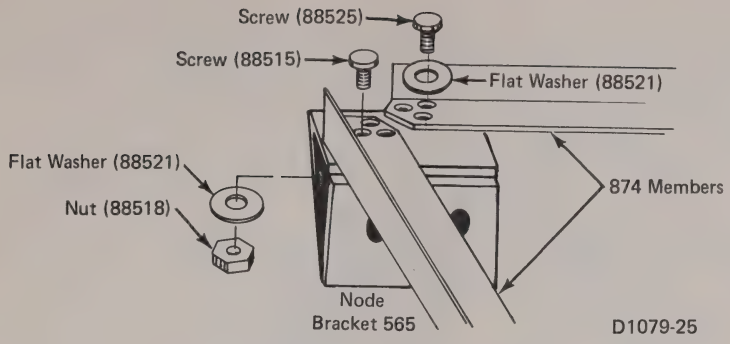


Figure 4-6. Node Bracket 565

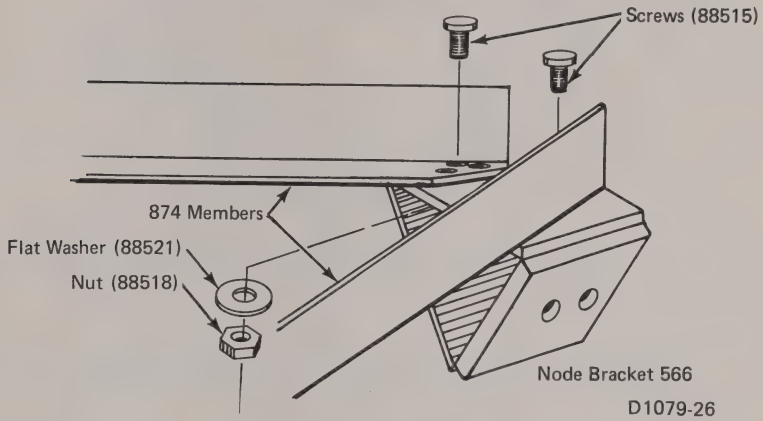


Figure 4-7. Node Bracket 566

Use screws (88515) with nuts (88518) and flat washers (88521) to join the 874 members to the node brackets except at node bracket 565. The far right hole of node bracket 565 (viewed from inside the framework) is threaded and requires a 1/2-13 x 1-inch screw (88525) and one washer (88521). The far left hole at that node requires the same fasteners used at the other nodes. Do not tighten these screws until instructed to do so.

Note

Do not install remaining four screws required at each node bracket until instructed to do so in paragraph 4.2.2, step 3 (a).

4.2.2 Feed Mounting Ring 737 and 867 Radial Members

1. Feed mounting ring 737 is shown in figure 4-8.

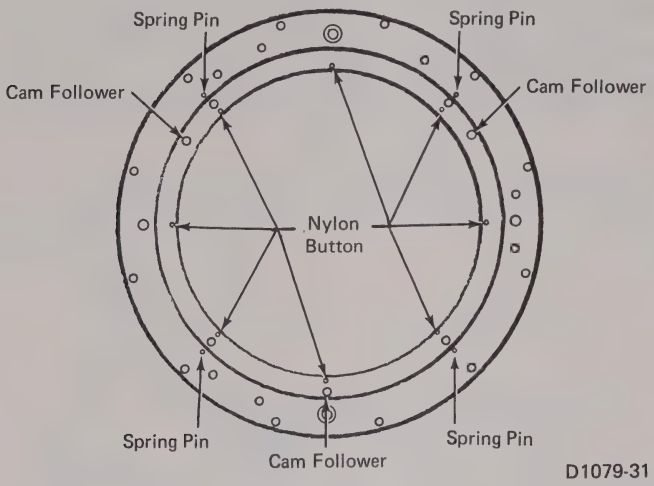


Figure 4-8. Feed Mounting Ring 737

Install the following parts on feed mounting ring 737.

a. The three cam followers (part number 85509) must be screwed into the ring as shown in figure 4-9.

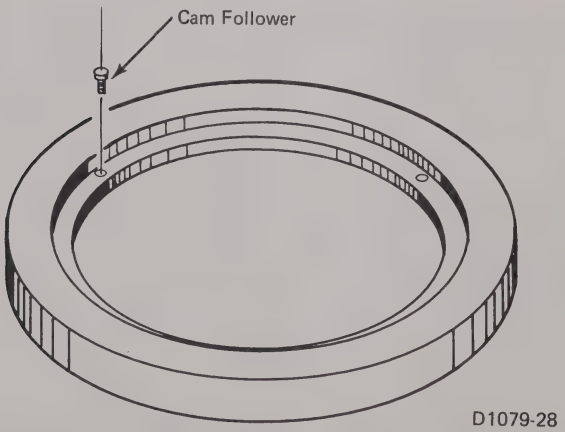


Figure 4-9. Installation of Cam Followers

b. The eight nylon buttons (part number 21029) must be pressed into the ring as shown in figure 4-10.

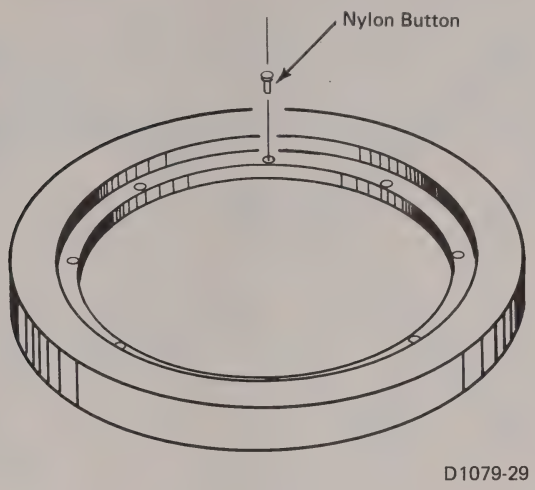


Figure 4-10. Installation of Nylon Buttons

c. The four spring pins (part number 71654) must be pressed into the ring as shown in figure 4-11.

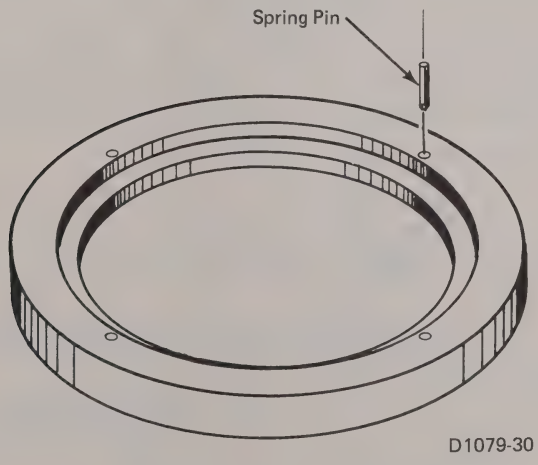


Figure 4-11. Installation of Spring Pins

2. Refer to figure 4-12 for orientation of feed mounting ring 737 and 867 radial members.

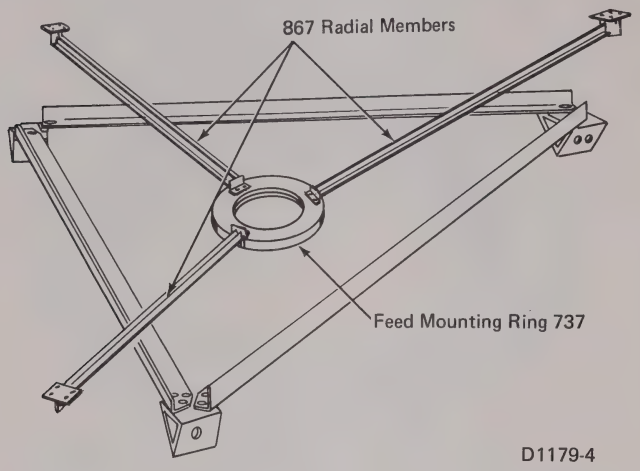


Figure 4-12. Backing Structure Assembly - Orientation of Feed Mounting Ring 737 and 867 Radial Members (867 Members Attached to Feed Ring.)

Attach feed mounting ring 737 to the three 867 radial members that support the ring, fastening with six screws (88514) and washers (88520). This installation is shown in figure 4-13. Nuts are not required for these screws. The 867 radial members are attached on the flat side of the mounting ring as shown in figure 4-12.

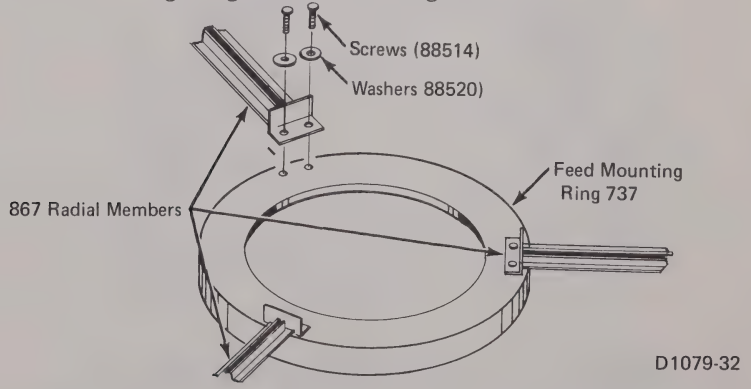


Figure 4-13. Attachment of 867 Radial Members to Feed Mounting Ring 737

Note

The subassembly consisting of the mounting ring and 867 radial members is positioned upside down as shown in figure 4-13 for ease in attaching the radial members. It will be turned over when it is attached to the three node brackets.

3. Turn the mounting ring assembly over, and position the unattached end of each 867 radial member on top of a node bracket so that its holes line up with the holes in the 874 member and the bracket. Position the mounting ring so that a line down through the two 3/4-inch tapped holes is parallel to the centerline of the foundation. These are the holes at which the eyebolts are shown in figure 4-14.

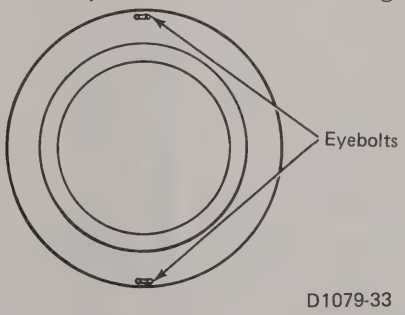


Figure 4-14. Location of Eyebolts on Feed Mounting Ring

Note

Refer to figure 4-15 to clarify orientation of attachments shown in figure 4-16 and 4-17.

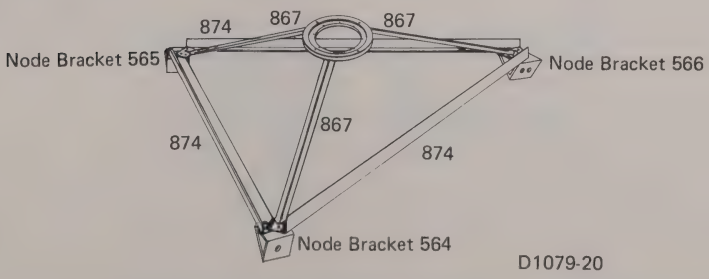


Figure 4-15. Backing Structure Assembly - Attachment of 867 Radial Members and 874 Members at Node Brackets 564, 565, and 566

a. To attach the 867 radial members at node brackets 564 and 566, refer to figure 4-16. The 874 and 867 members are attached with four screws (88516), eight washers (88521), and four nuts (88518). The two outer screws are installed from the top as usual, but the two inner screws must be installed from underneath. To ease installation of other screws in this area, tap the inner screws down so that the end of the shaft is flush with the surface of the 867 member. Install the flat washers underneath and set aside the nuts and the top washers for these screws for installation later, after reflector assembly is completed.

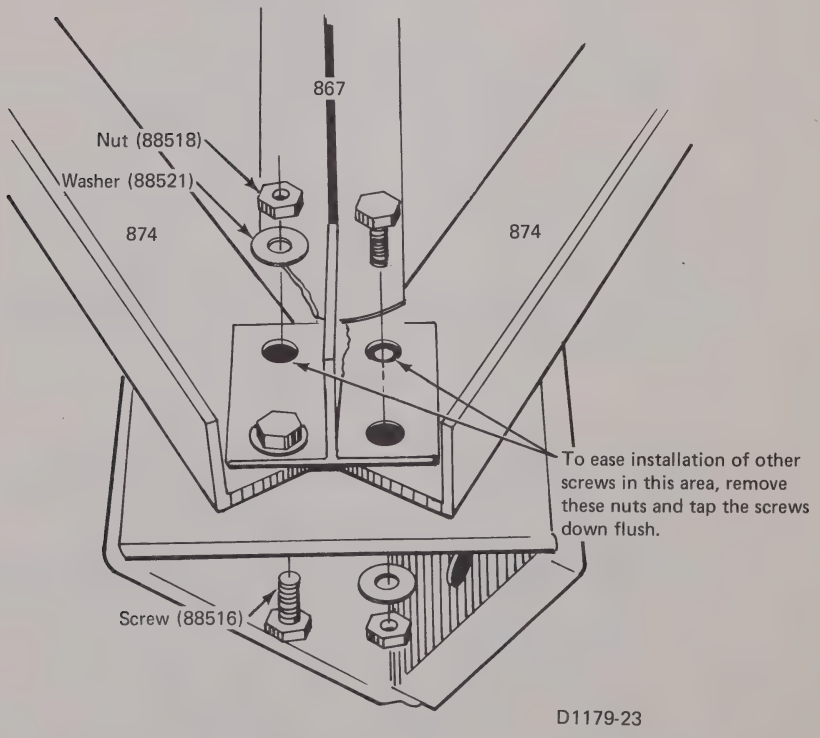


Figure 4-16. Attachment of 867 Radial Member and 874 Members at Node Brackets 564 and 566

b. To attach the 867 radial member at node bracket 565, refer to figure 4-17. The inner left hole in this bracket is threaded, and a screw (88525) without a washer is used to join the 867 and 874 members at node bracket 565. This screw is installed from the top. At the other three holes in node bracket 565, install screw (88516), washers (88521), and nuts (88518) as instructed in step a.

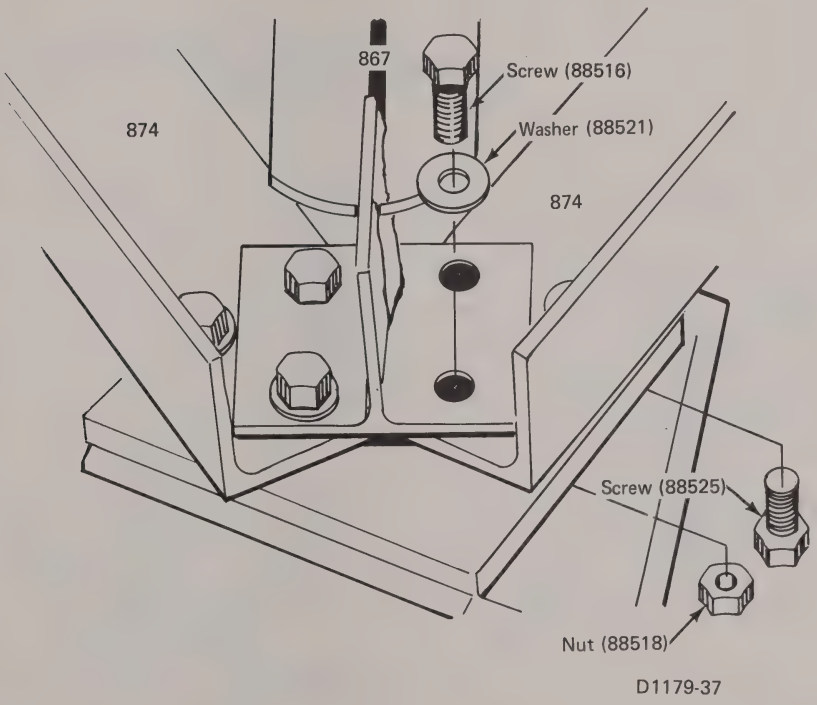


Figure 4-17. Attachment of 867 Radial Member and 874 Members at Node Bracket 565

c. Once all screws are installed, the far left, far right, and two outer screws at each node bracket should be torqued to 76 ft-lbs. The inside left (1-inch) screw at node bracket 565 can also be torqued to 76 ft-lbs at this time.

4.2.3 861 and 862 Members and 860 Spar Tab

Refer to figure 4-18 to clarify orientation of 861 and 862 members and 860 spar tab.

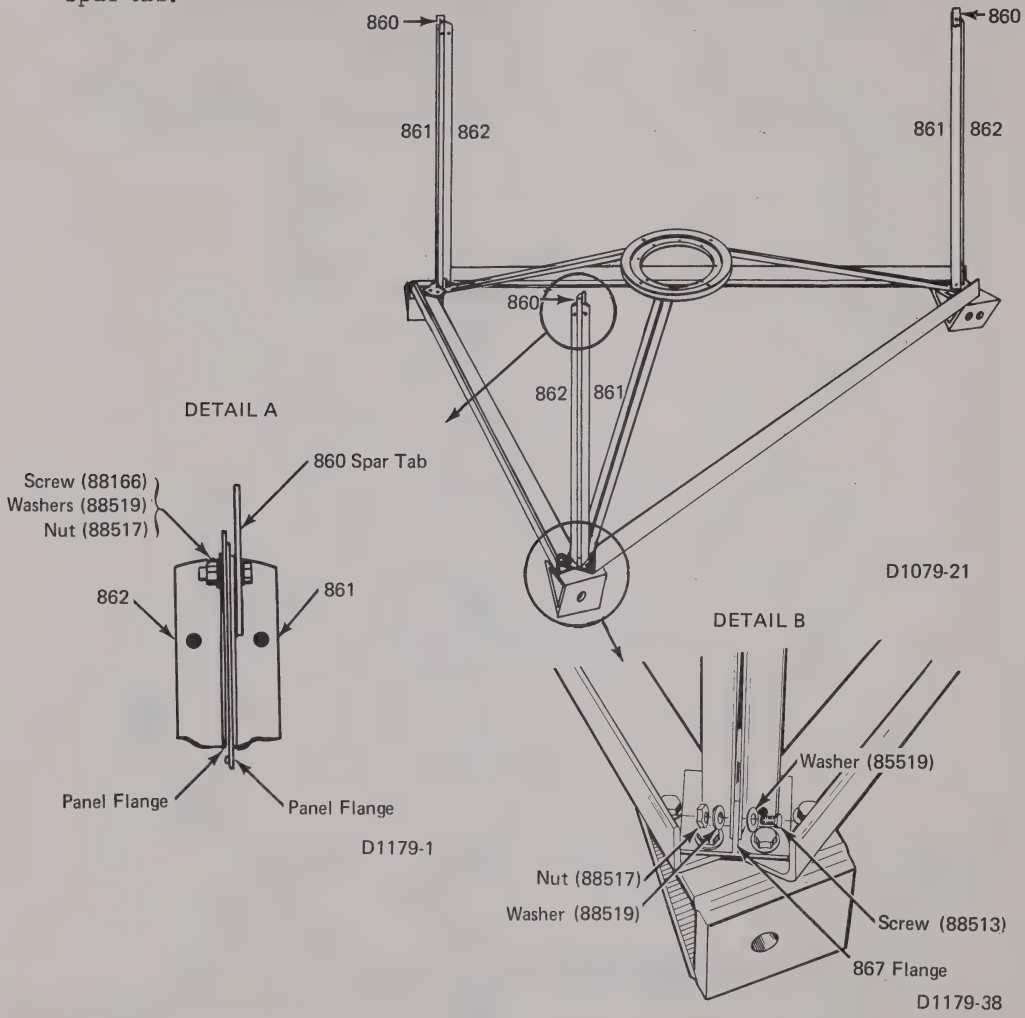


Figure 4-18. Backing Structure Assembly - Attachment of 861 and 862 Members and 860 Spar Tabs

1. Install an 861-862 pair in a vertical position at each node bracket with 861 member on the right-hand side of the flange on the 867 radial member and 862 member on the left-hand side as shown in figure 4-18, detail A.

2. The 861 and 862 members are installed so that the chamfered ends are at the top and the surfaces with the two holes are brought together as shown in figure 4-19.

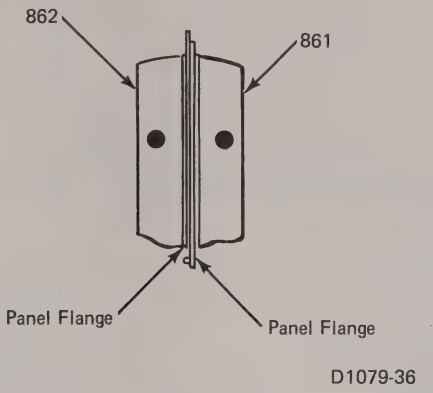


Figure 4-19. Orientation of 861 and 862 Members

3. Insert a screw (88513) through 861 member, 867 flange and 862 member as shown in figure 4-18, detail A. Secure with two washers (88519) and a nut (88517). Hand tighten.

4. At the top of the 861-862 pair, position an 860 spar tab to the right of the 861 member and loosely secure it with one screw (88166) going through the top hole in the spar tab, then through 861 and 862. (The grooved end of the tab should be up and facing the feed mounting ring.) Install washers (88519) and a nut (88517). Refer to figure 4-18, detail B.

4.2.4 863, 865, and 866 Members

1. Attach the 863, 865, and 866 members at the nodes as described in the following steps. In all cases, the 865 and 866 members are installed on the inside of 861 and 862, respectively, while the 863 members are installed outside 861 and 862. Refer to figure 4-20 to clarify the orientation of the 863 members.

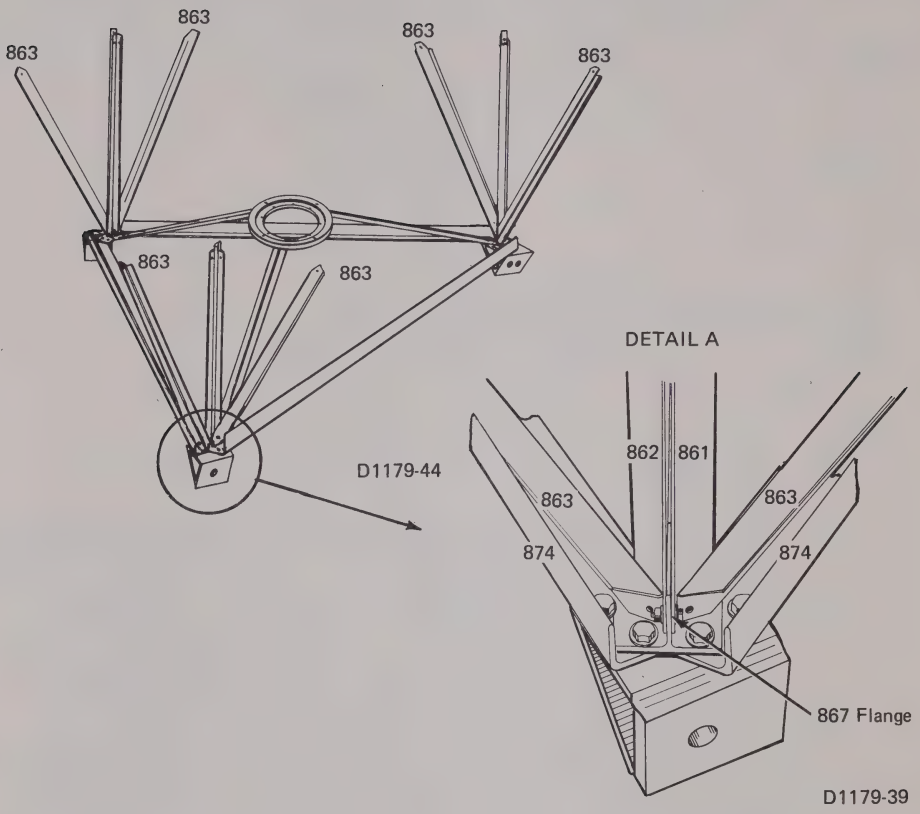


Figure 4-20. Backing Structure Assembly - Attachment of 863 Members

a. The 863 members are positioned as shown in figure 4-20, detail A. Do not install the screws to attach these members until the 865 and 866 members are correctly positioned.

b. Refer to figure 4-21 to clarify the orientation of the 865 and 866 members. The attachment of the 863, 865, and 866 members at a node bracket is shown in figure 4-21, detail A.

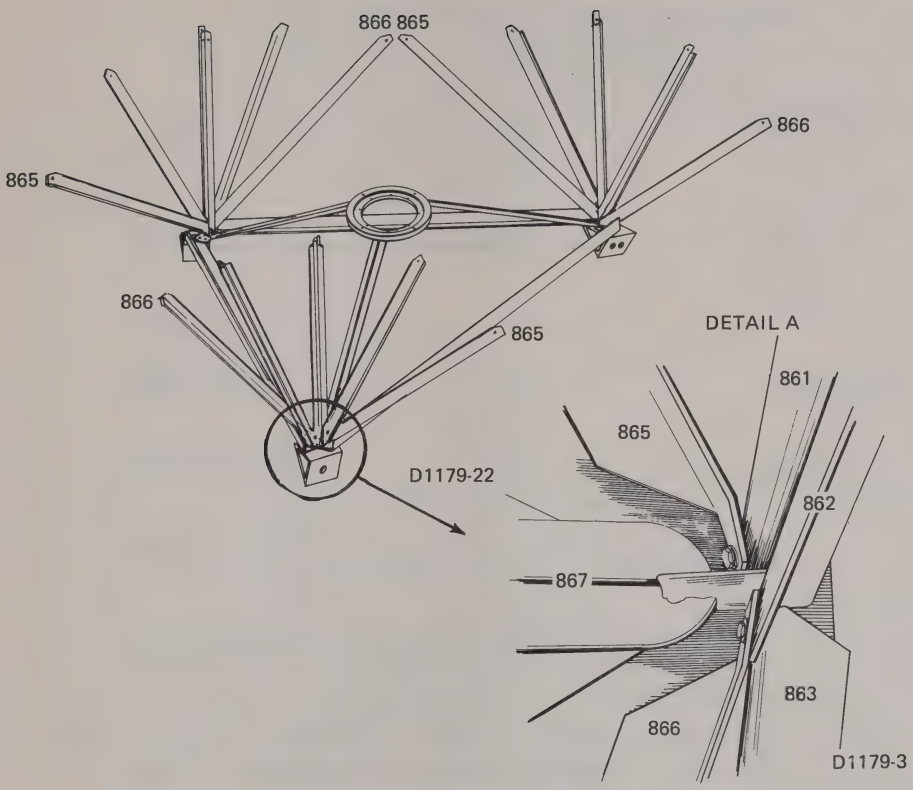


Figure 4-21. Backing Structure Assembly - Attachment of 865 and 866 Members

c. Attach an 865 member at the bottom and on the inside of an 861 member at each node. When the 865 member is properly oriented, the bend of the angle is on the outside, that is, the angle breaks down and in with the short leg closest to the feed ring. The end of the member at which the short leg is cut away at an angle - not squared off - attaches at the node (refer to figure 4-22).

Note

Be very careful to orient the 865 and 866 members correctly. Follow the instructions exactly.

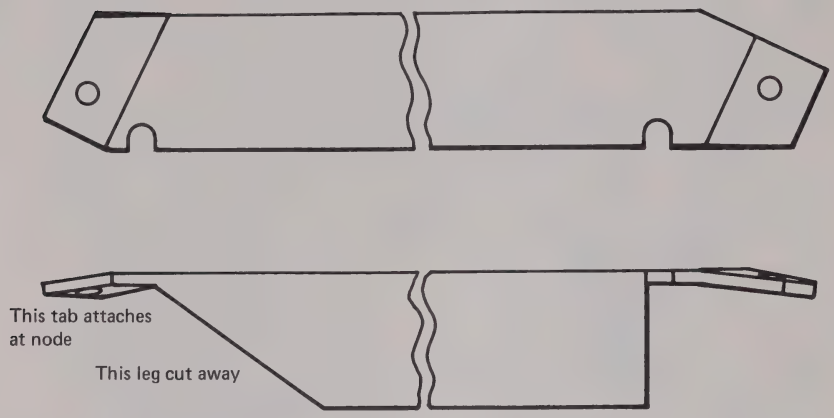


Figure 4-22. Member 865 Detail

Insert a screw (88513) with washer (88519) through the 865 member into the 861 member and, finally, bring the loose end of the 863 member onto the screw. Install a nut (88517) and another washer and hand tighten. This installation is shown in figure 4-23.

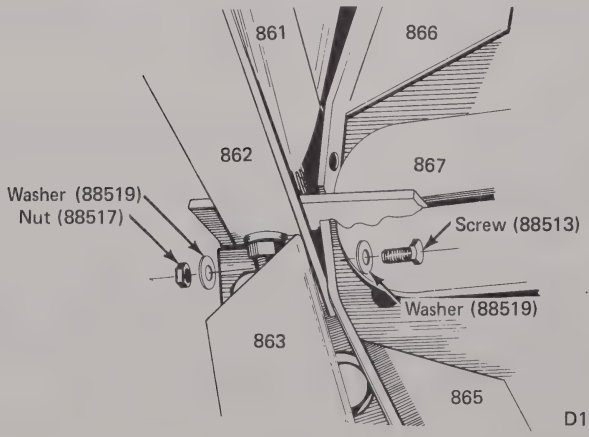


Figure 4-23. Attachment of 865, 861, and 863 Members

d. Also at each node, attach an 866 member in the correct orientation at the bottom and on the inside of the 862 member. Again, when the 866 member is properly oriented, the angle breaks down and in with the short leg closest to the feed ring. The end of the member at which the short leg is cut away at an angle attaches at the node (refer to figure 4-24).

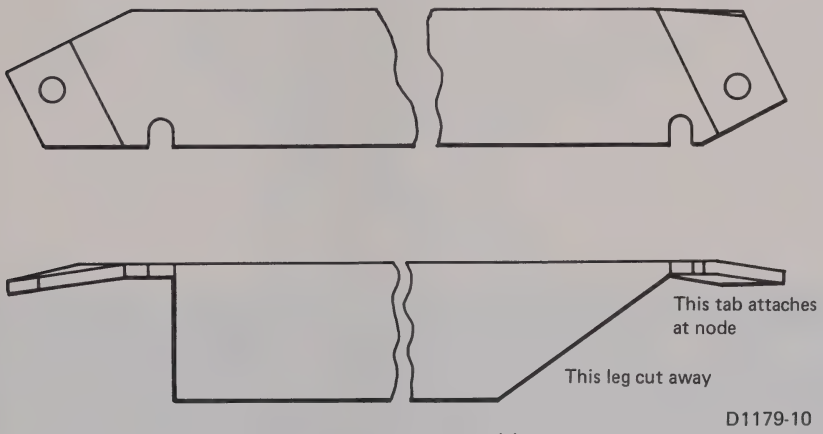


Figure 4-24. Member 866 Detail

Insert a screw (88513) with a washer (88519) through the 866 member into the 862 member and, finally, bring the loose end of the 863 member onto the screw. Install a nut (88517) and another washer and hand tighten. This installation is shown in figure 4-25.

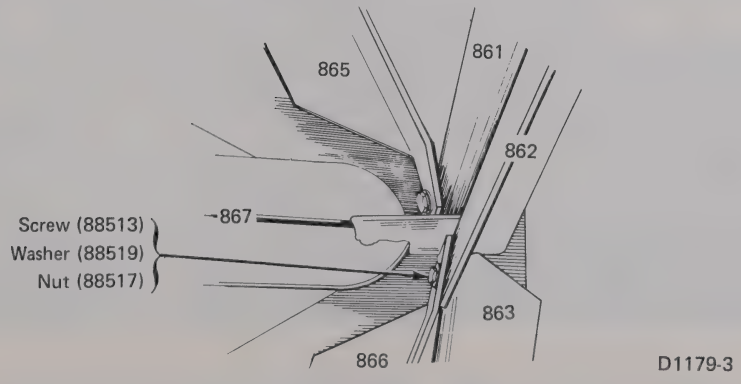


Figure 4-25. Attachment of 866, 862, and 863 Members

Note

Antenna assemblies shipped before December 15, 1979 may not have one leg of 865 and 866 cut away as described in paragraph 4.2.4, steps 1 (c) and (d).

2. At each node, the following pieces should now be attached to the node bracket (refer to figure 4-26).

two 874 members
one 867 member
one 861 member
one 862 member
two 863 members
one 865 member
one 866 member

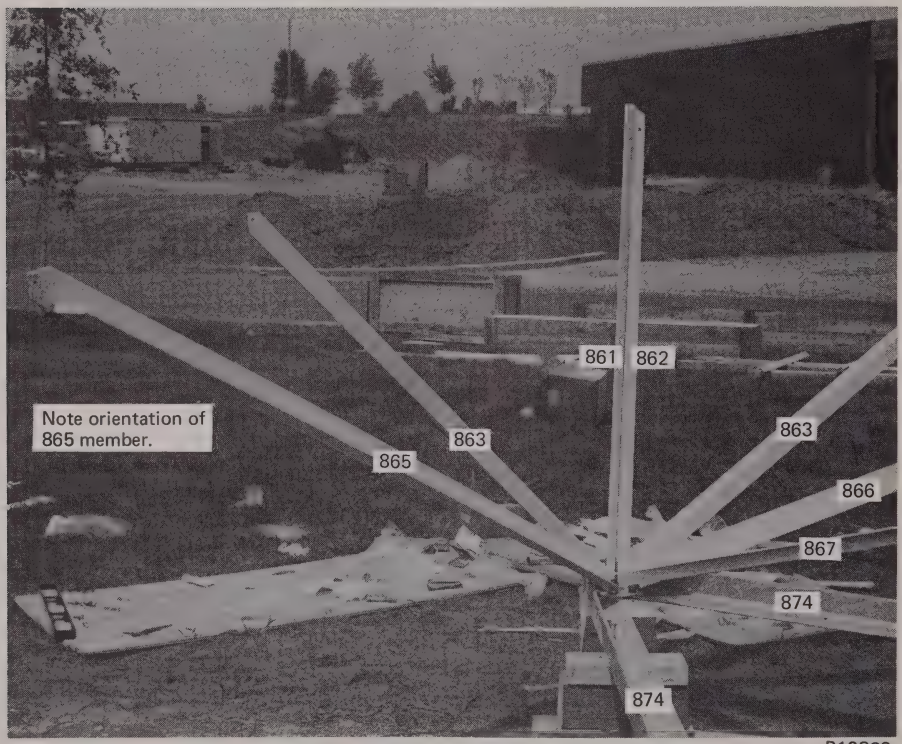


Figure 4-26. Reflector Assembly

4.2.5 870 Members and Brackets 868 and 869

1. At each node, install two 870 members at the top and outside of the 861-862 pair as shown in figure 4-27. Use screws (88513), washers (88519) and nuts (88517). Hand tighten.

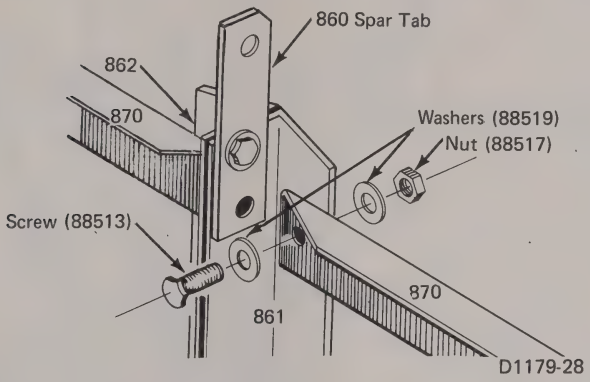


Figure 4-27. Installation of 870 Members

2. For orientation of 870 members and 863 members, see figure 4-28.

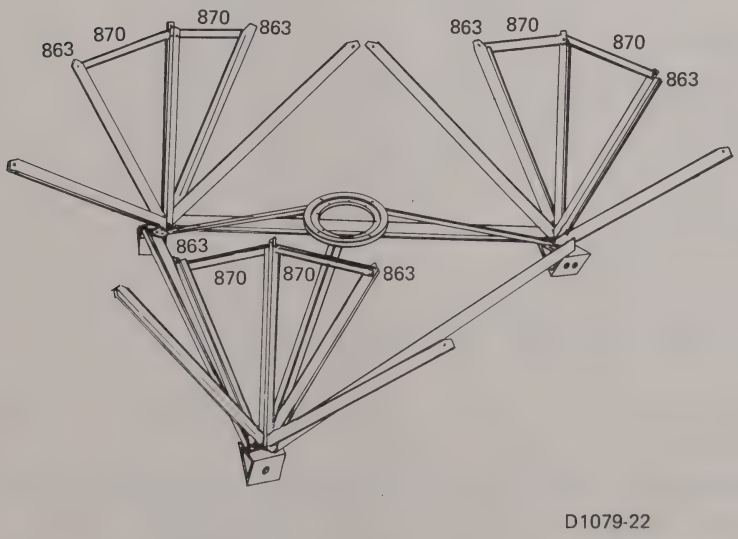


Figure 4-28. Backing Structure Assembly - Attachment of 870 Members to 863 Members

Fasten the other ends of the 870 members to the 863 members as shown in figure 4-29, using right-hand brackets 868 and left-hand brackets 869. Use screws (88513) with washers (88519) and nuts (88517) to install the brackets (refer to figure 4-29, detail A).

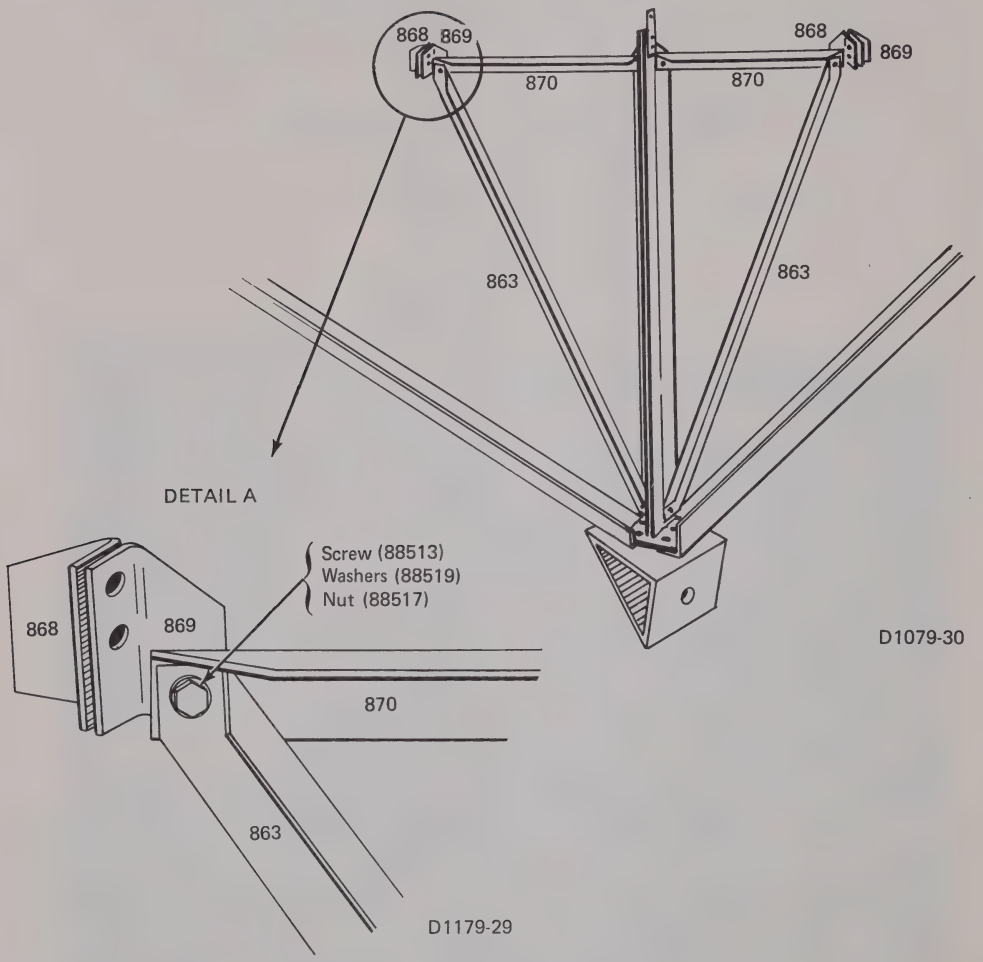


Figure 4-29. Attachment of 870 Members to 863 Members (From Perspective of Node Bracket 564)

3. Attach 870 members to 866 and 865 members. For orientation of 870, 866 and 865 members, see figure 4-30.

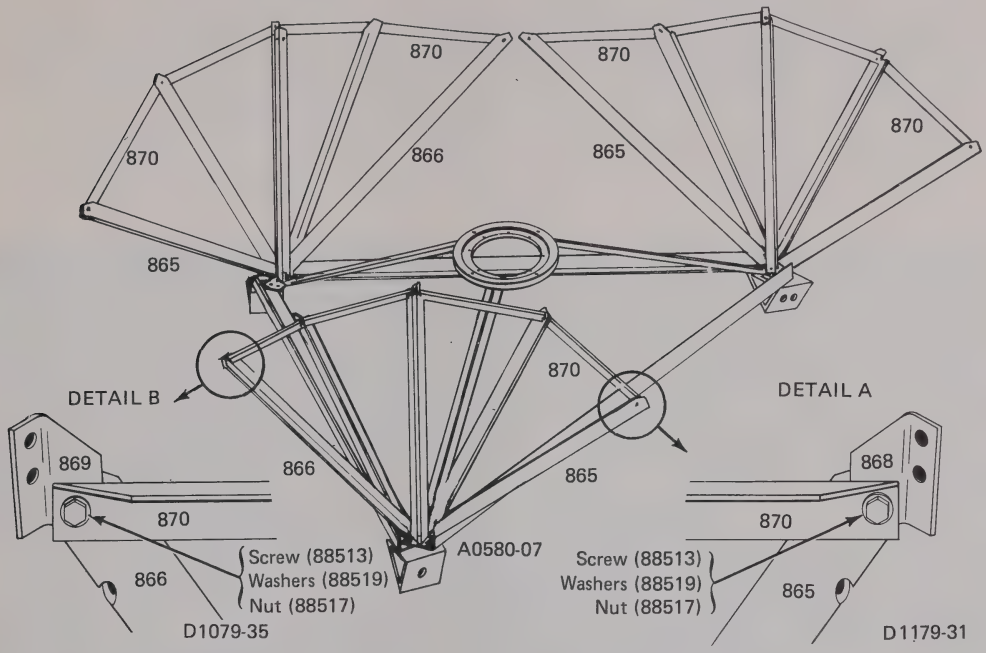


Figure 4-30. Backing Structure Assembly - Attachment of 870 Members to 866 and 865 Members

a. At each node, fasten an 870 member to the 866 member as shown in figure 4-30, detail A. The screw (88513) with washer (88519) should be inserted in the 870 member, then through bracket 868, and finally, through the 866 member. Be careful to orient the 870 member correctly. Loosely thread a second washer and a nut (88517) on the screw.

b. On the free end of the 870 member, attach an 869 bracket, inserting the screw first through the 870 member.

c. Similarly, attach an 870 member to the 865 member with a screw inserted first in a properly oriented 870 member, then through an 869 bracket and finally, through the 865 member, as shown in figure 4-30, detail B. Again, loosely thread another washer and a nut onto the screw.

4.3 INSTALLATION OF REFLECTOR PANELS

The Model 8125 Reflector surface is made up of 12 panels, three of which have a slot through which the 860 spar tab must extend. The supports for the subreflector will later be secured to these tabs. Figure 4-31 shows the panel installation of a spar tab. Begin installation of the reflector panels at node bracket 566 and proceed clockwise around the frame.

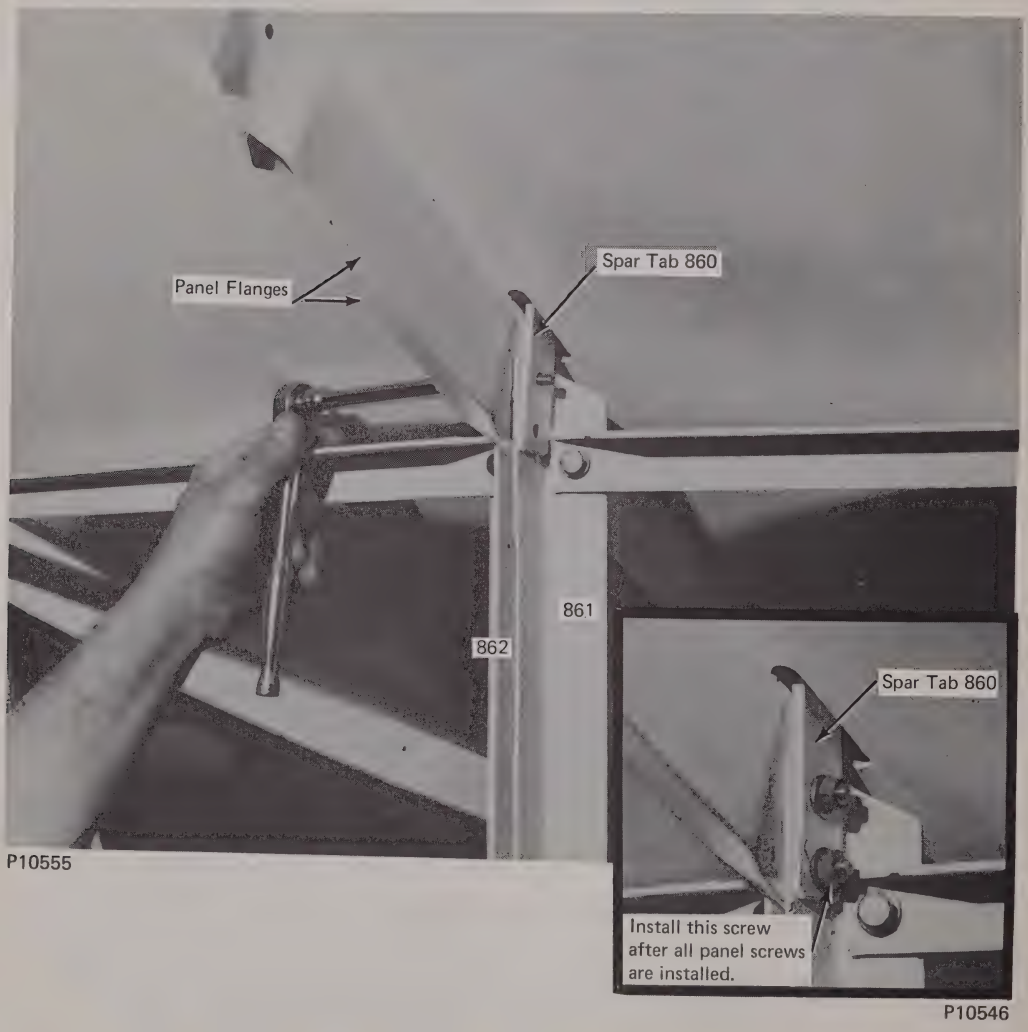
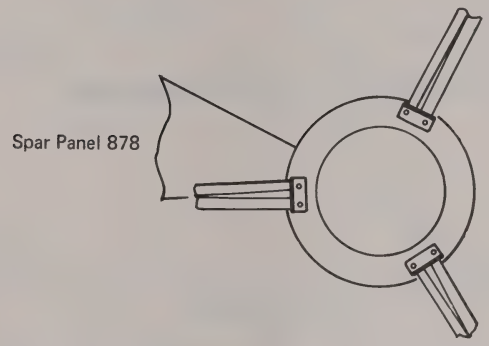


Figure 4-31. Reflector Panel Installation

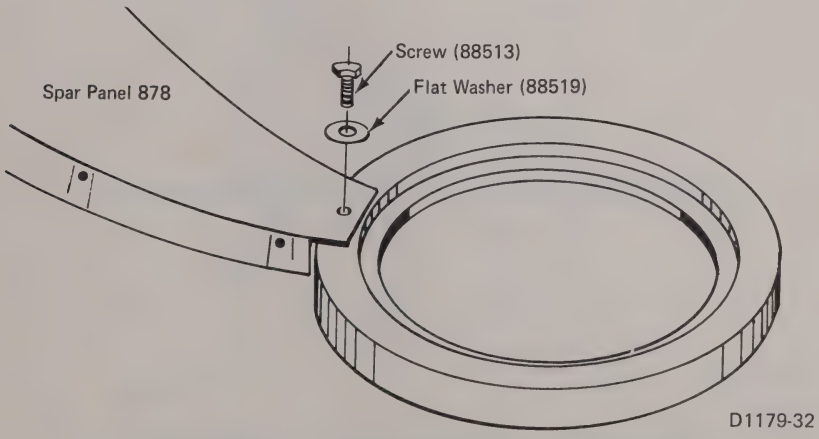
1. Select a spar panel 878 (see figure 4-32) and lay it on the framework above node bracket 566 so that the 860 spar tab extends through the slot and the hole in the narrow end of the panel lines up with the appropriate 5/16-18 tapped hole in the feed mounting ring.



D1179-35

Figure 4-32. Spar Panel 878 - Orientation

2. Loosely secure the panel to the feed mounting ring with a screw (88513) and one flat washer (88519) as shown in figure 4-33.



D1179-32

Figure 4-33. Attachment of Spar Panel 878 to Feed Mounting Ring

3. Loosen the screw installed to hold the 860 spar tab and 861 and 862 together until the screw no longer holds the 862 member. Bring the panel flange between 861 and 862 and push the screw through the hole in the panel flange as shown in figure 4-34.

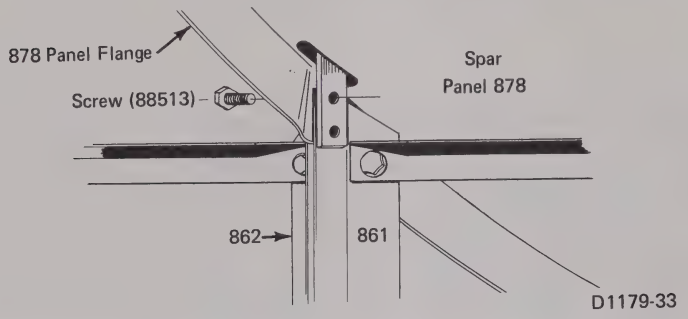


Figure 4-34. Installation of 878 Panel Flange Between 861 and 862 Members

4. Select a plain panel 875 (see figure 4-35) and lay it on the framework to the left of the spar panel. Loosely secure this panel to the feed mounting ring.

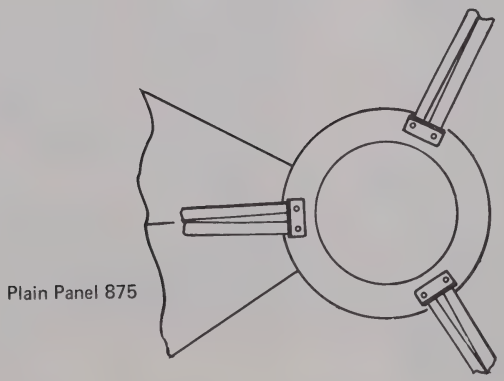


Figure 4-35. Plain Panel 875 - Orientation

5. Starting at the hole nearest the feed mounting ring, insert a screw (88513) with washers (88519) and a nut (88517) through the spar panel 878 and then into the plain panel 875 in the first three holes joining the panel flanges. This installation is shown in figure 4-36.

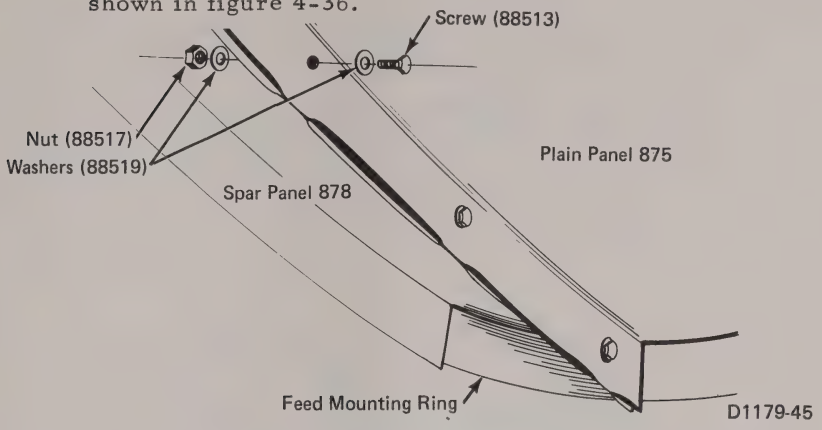


Figure 4-36. Attachment of Spar Panel 878 to Plain Panel 875

After these three screws are installed, push the screw holding the 860 spar tab, 861, and the spar panel flange together on through the hole in the plain panel and through 862. This installation is shown in figure 4-37.

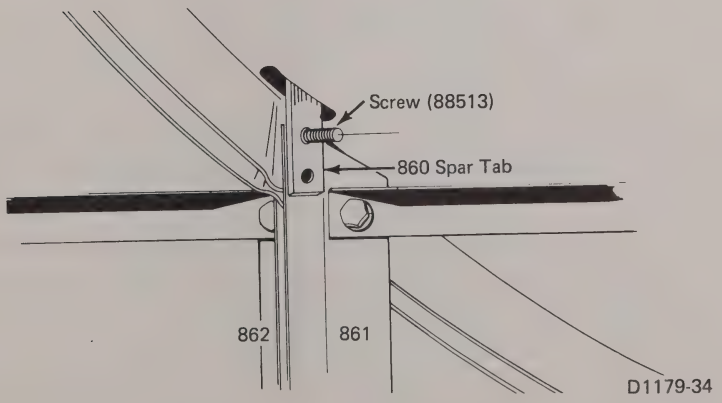


Figure 4-37. Attachment of Panel Flanges

With this done, the remaining screws along the junction of the two panel flanges can be installed along with the other screw (88166) that attaches the panel flanges to the 861 and 862 members.

6. Continue with the installation of the remaining panels, bringing the panel flanges together between the brackets (868 and 869) or the 861-862 pair as applicable. Be sure to follow the procedure detailed in step 5 as each panel is attached to the framework. The decal panel (see figure 4-38) is the last panel to be installed.

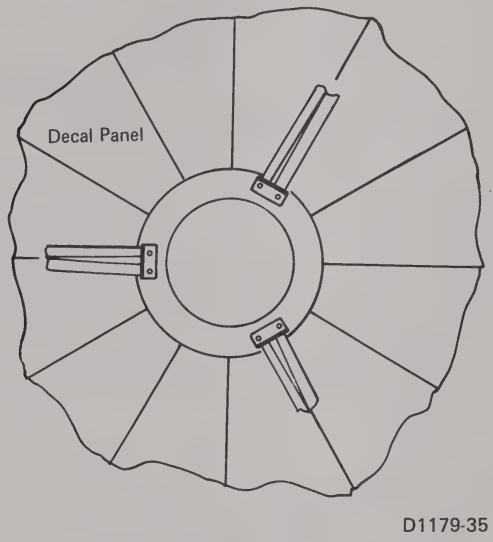


Figure 4-38. Decal Panel - Orientation

7. Torque the screws joining the panel flanges to 18 ft-lbs only after all screws are installed. The order in which they are torqued is not important.

4.4 TIGHTENING SEQUENCE

All components of the reflector and spaceframe are now in place and all hardware should be installed.

Note

Check to see that two washers and a nut are installed with each screw except where otherwise noted.

Before erection of the reflector, all screws must be torqued as described below.

1. The screws securing the 874 members and 867 radial members to the node brackets should be tightened to 76 ft-lbs or one-third turn beyond snug tight.
2. Screws securing 867 radial members to the feed mounting ring should be tightened to 31 ft-lbs.
3. Screws securing panel edges to the feed mounting ring should be tightened to 31 ft-lbs.
4. All other screws should be tightened to 18 ft-lbs.

4.5 REFLECTOR ERECTION/MOUNT ASSEMBLY

The reflector should now be completely assembled with all hardware tightened. If the mounting feet have not previously been installed on the anchor bolts, install them now according to the instructions in paragraph 3.4. The mount assembly is shown in figure 4-39.

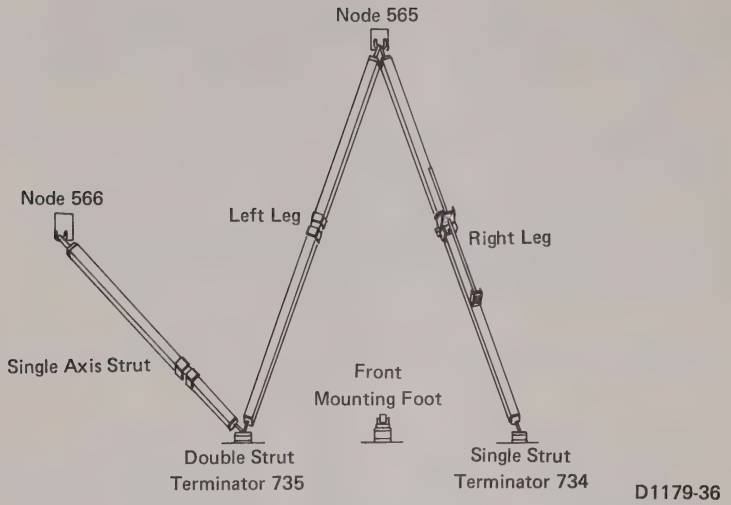


Figure 4-39. Mount Assembly - Overview

4.5.1 Leg Assembly

Prepare the legs as instructed below before attaching them to the antenna. Figure 4-40 shows the telescoping leg assemblies. Note that the closed end of each leg piece has a chamfered edge.

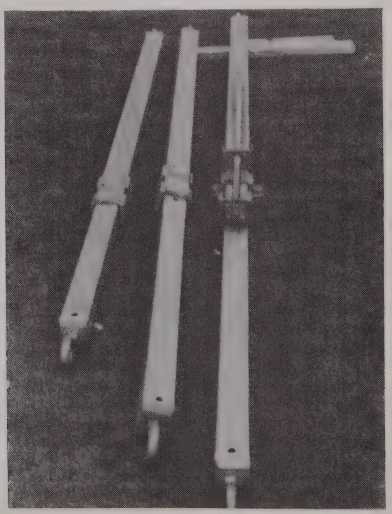


Figure 4-40. Telescoping Leg Assemblies

Figure 4-41 identifies leg and strut members and attachments.

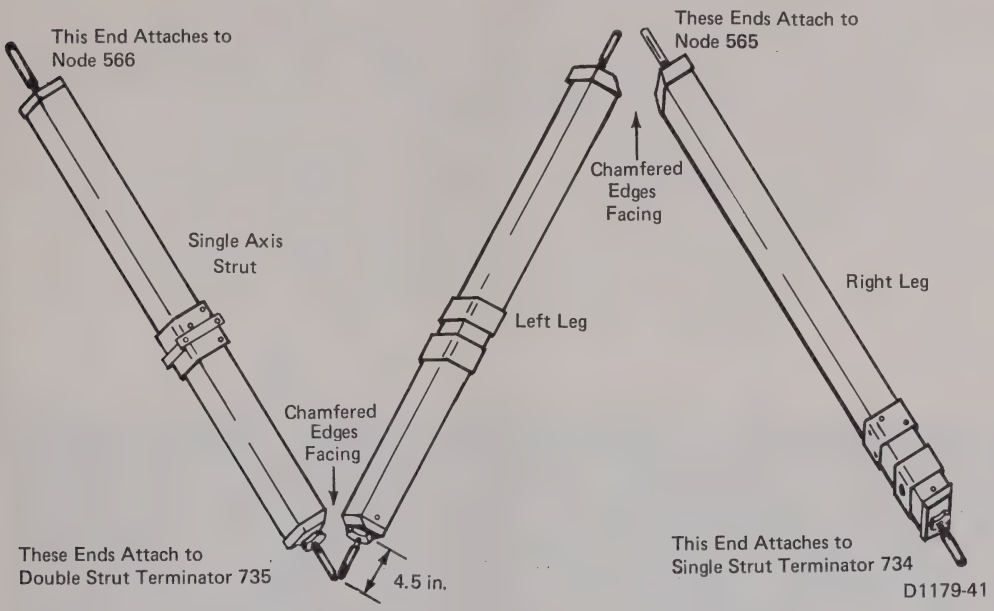

This End Attaches to Node 566
These Ends Attach to Node 565
Chamfered Edges Facing
Single Axis Strut
Left Leg
Right Leg
Chamfered Edges Facing
These Ends Attach to Double Strut Terminator 735
4.5 in.
This End Attaches to Single Strut Terminator 734
D1179-41

Figure 4-41. Leg and Strut Identification

1. Install an eyebolt (211999) with a nut (88533) in the closed end of each upper leg strut (991, 993 and 996). The distance from the top surface of the leg to the top of the eyebolt should be 4.5 inches. Do not tighten the eyebolts more than that. The eyebolts must be parallel to the chamfered edges of the legs as shown in figure 4-40.

2. Install an eyebolt (211999) with a nut (88533) in the closed end of each lower leg strut (992, 994, and 995). The distance from the top surface of the leg to the top of the eyebolt should be 4.5 inches. These eyebolts must also be parallel to the chamfered edges of the legs as shown in figure 4-40.

3. The three legs have been color-coded to ensure that they are positioned correctly.

Single axis strut (95 to 165 inches)	Red dot
Rear leg (85 to 145 inches)	Blue dot
Rear leg (75 to 125 inches)	Green dot

The longest length leg (red dot) is always positioned to function as the single axis strut, while the two rear legs will be designated Left and Right depending on the antenna site. Refer to figures 4-42 and 4-43 to place the legs correctly.

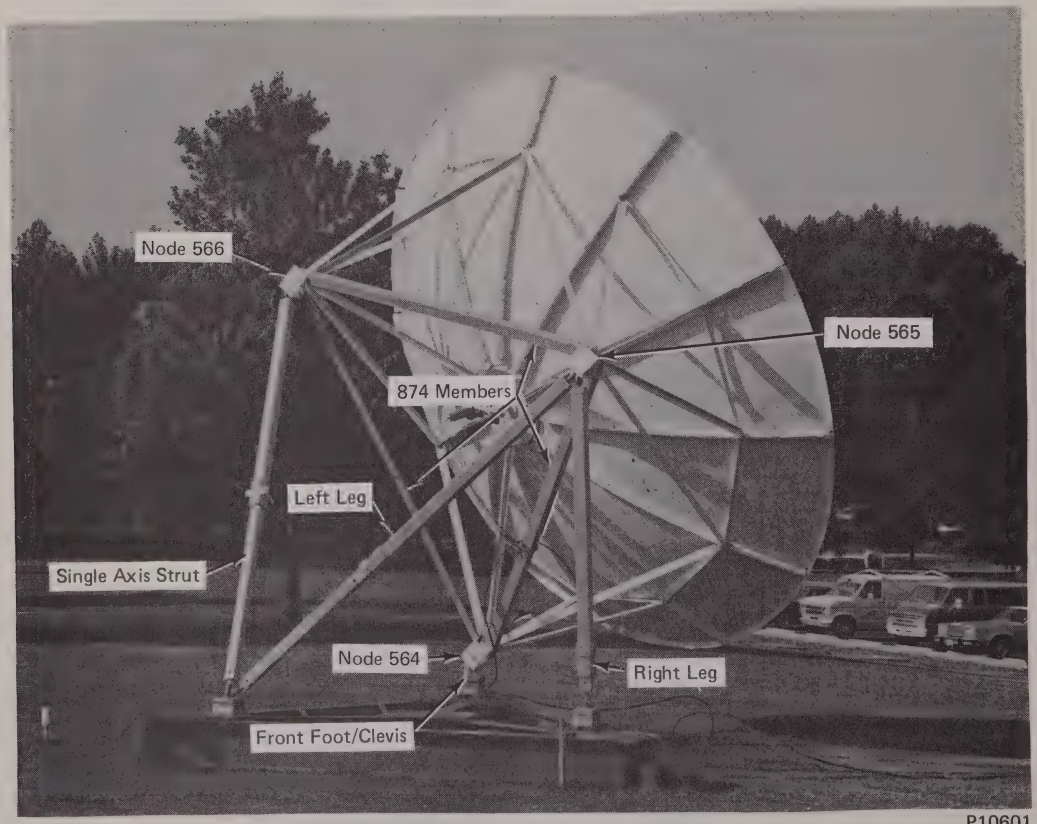


Figure 4-42. Model 8005 Antenna - Rear View

Figure 4-43. Identification of Right and Left Leg

4. Six screws (88515) are provided to function as set screws in the legs and the single axis strut.

   a. For ease in attaching the right and left legs to the mount during erection, the set screws should not be tightened in those two legs until the U-bolt attachments have been made at the strut terminators.

   b. Adjust the single axis strut to a total length of 100 inches and install two set screws in the threaded holes at the open end of the female portion of each leg. This installation is shown in figure 4-44.

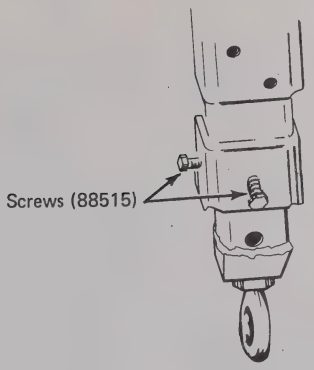


Figure 4-44. Installation of Two Set Screws into Female Portion of Each Leg

Tighten these screws a half turn beyond snug before the antenna is erected, then loosen them to adjust a leg or strut only when the adjusting mechanism is securely fastened to the leg or strut.

5. Lay the right and left legs down behind the single and double strut terminators positioned so that the chamfered edges on the ends to be attached to node 565 will face each other. Refer to figure 4-45.

6. Lay the single axis strut down near the double strut terminator positioned so that the chamfered edge on the end to be attached to the double strut terminator will face the chamfered edge of the left leg. Refer to figure 4-45.

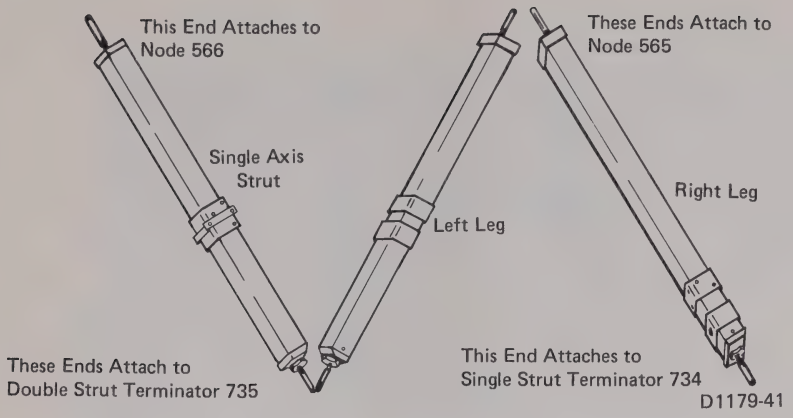

This End Attaches to Node 566
Single Axis Strut
Left Leg
These Ends Attach to Node 565
Right Leg
These Ends Attach to Double Strut Terminator 735
This End Attaches to Single Strut Terminator 734
D1179-41

Figure 4-45. Leg and Strut Identification

4.5.2 Attachment of Lifting Sling

Install eyebolts (78503) in the two tapped holes in the feed mounting ring as shown in figure 4-46. Secure a 1/2-inch shackle pin in each eyebolt and shackle. Attach a lifting sling strap at least 10 feet long to each shackle. Attach the lifting hook of the crane to the center of the sling.

WARNING

THE EYEBOLTS INSTALLED IN THE FEED RING FOR LIFTING MUST BE COMPLETELY ENGAGED. THE SHOULDERS OF THE EYEBOLTS SHOULD BE FLAT AGAINST THE SURFACE OF THE FEED MOUNTING RING.

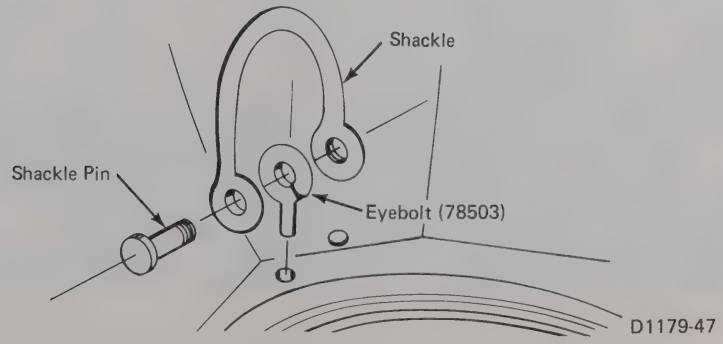


Figure 4-46. Attachment of Shackle to Eyebolt

The attachment of the lifting sling is shown in figure 4-47.

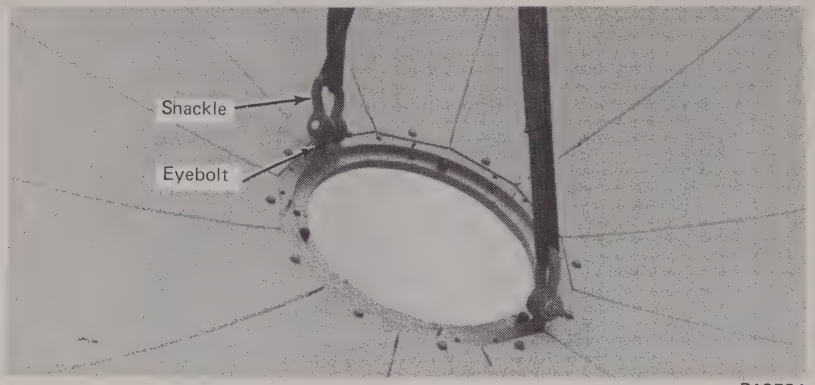


Figure 4-47. Attachment of Lifting Sling

4.5.3 Attachment of Rear Legs to Reflector

Position the reflector, which is now supported by the front foot and the lifting sling, so that node brackets 565 and 566 are within convenient reach as shown in figure 4-48.

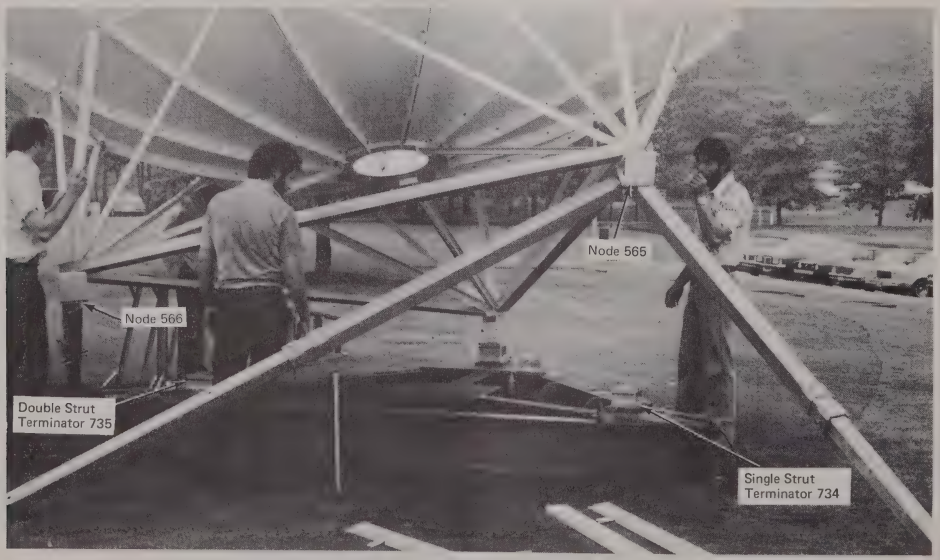


Figure 4-48. Attachment of Rear Legs to Node 565

1. Attach two rear legs to node 565 with a U-bolt (212058) installed with nuts (88534). (Washers should not be used.) This attachment is shown in figure 4-49. (See figure 4-48 for orientation.)

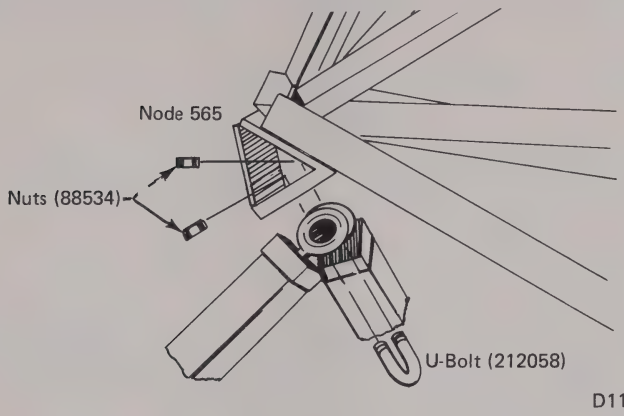


Figure 4-49. Attachment of Two Legs with U-Bolt at Node 565

As noted in paragraph 4.5.1, the chamfered edges must face each other for the legs to meet at the proper angle. Tighten the nuts only enough to bring them flush with the end of the bolt.

2. Attach the remaining rear leg (the single axis strut) to node bracket 566 as shown in figure 4-50. (See figure 4-48 for orientation.)

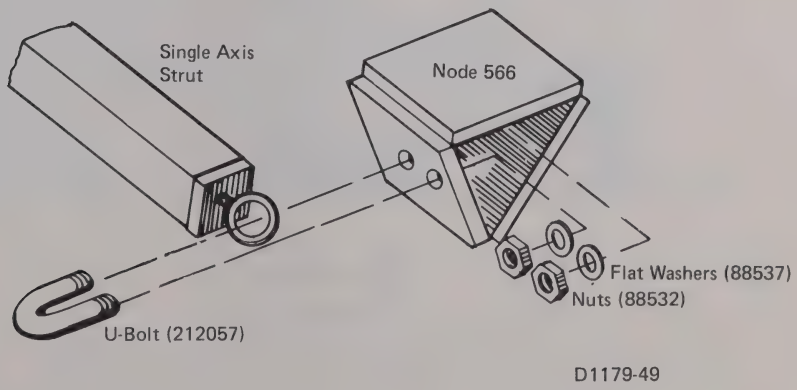


Figure 4-50. Attachment of Single Axis Strut with U-Bolt at Node 566

Use a U-bolt (212057) with nuts (88532) and flat washers (88537). Note that this leg must be turned so that the chamfered edge on the lower portion faces the chamfered edge of the other leg that will be attached at the double strut terminator. Tighten the nuts on the U-bolt hand tight.

4.5.4 Attachment of Rear Legs to Mounting Feet

When the three legs are attached to the reflector node brackets, hoist the reflector towards a vertical position while guiding the legs into position to attach to the strut terminators.

1. The single axis strut attached to node 566 and one of the legs attached to node 565 must now be brought together at double strut terminator 735 (refer to the rear view of the antenna shown in figure 4-51).

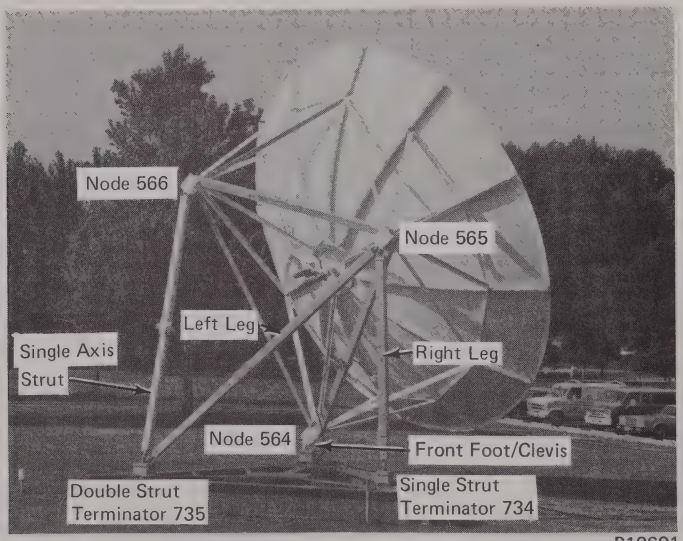


Figure 4-51. Model 8005 Antenna - Rear View

Secure these legs to the double strut terminator using a U-bolt (212058) with nuts (88534) and washers (88539). Tighten the nuts on the U-bolt hand tight. This installation is shown in figure 4-52.

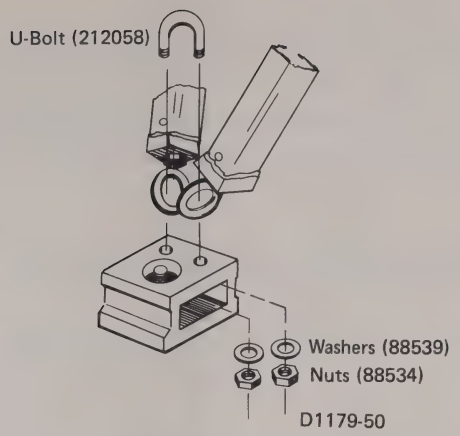


Figure 4-52. Double Strut Terminator 735

2. The lower end of the remaining leg attached to node 565 is secured at the single strut terminator with a U-bolt (212057), nuts (88532), and washers (88537). Hand tighten the nuts on the U-bolt. This installation is shown in figure 4-53.

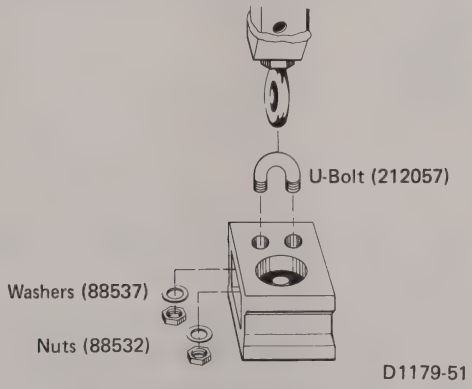


Figure 4-53. Single Strut Terminator 734

3. Tighten the set screws in the right and left legs to one-half turn beyond snug.

WARNING

ALL SET SCREWS MUST BE TIGHTENED AND ALL PERSONNEL MUST CLEAR FROM UNDER THE REFLECTOR BEFORE LIFTING STRAP TENSION IS RELEASED.

4. Clear from under the reflector and loosen tension on the lifting sling. After ensuring that the reflector is secure on the mount, remove the lifting sling and the eyebolts that were installed in the feed mounting ring for lifting.

4.6 INSTALLATION OF FEED

The feed mounting assembly is shown in figure 4-54.

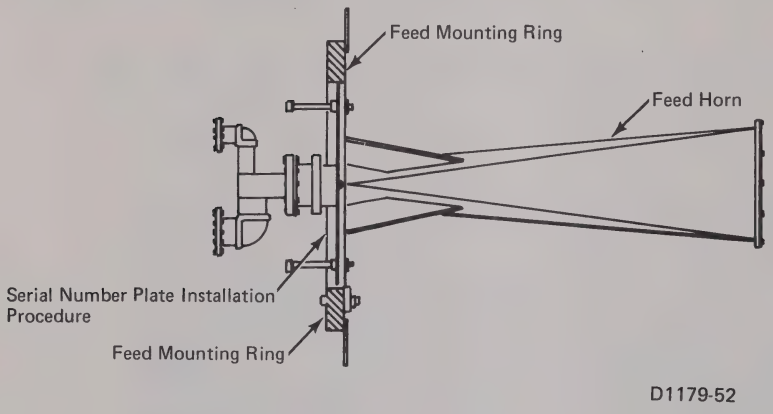


Figure 4-54. Model 8227 - Feed Mounting Assembly

1. To install the feed, position one person on a stepladder in front of the reflector while a second person passes up the feed assembly. With soft-soled shoes, you may step into the reflector.

2. Hold the feed in place while the second person goes behind the reflector and installs the screws (72661) and rear washers (73286) to secure the feed retainer plates. The person in front of the reflector can now install the nuts (81984). These lock nuts should only be screwed down to within 1/4 inch of the retainer plates. No washers are used on the front side of the feed. This installation is shown in figure 4-55.

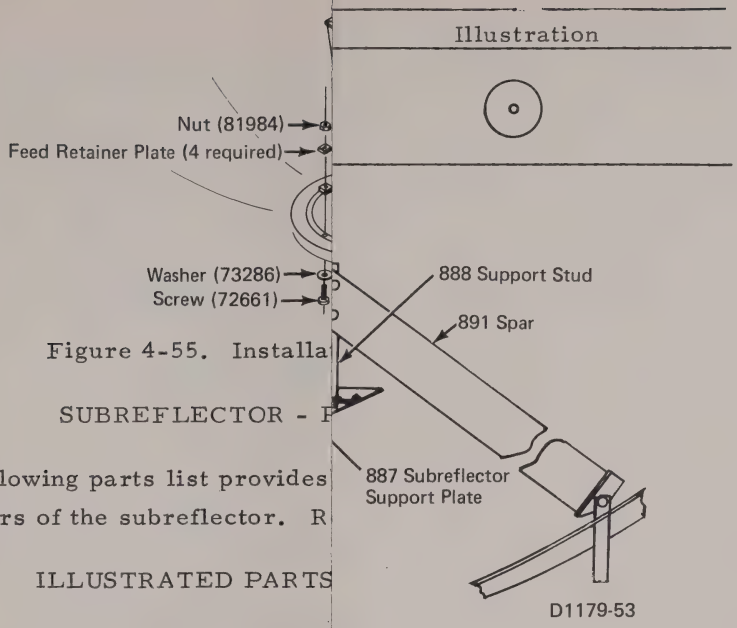


Figure 4-55. Installa

4.7 SUBREFLECTOR - F

The following parts list provides
members of the subreflector. R

ILLUSTRATED PARTS

Component	Qty	Descr
0213165	1	Subref
0211891	3	Spar
0211886	1	Spar C
0211888	1	Suppo
0212563	1	Mount Stand
0211887	1	Subre Suppo

flector Assembly

N

e 886 spar connector using
3282) and nuts (71513) as shown
hat for each of the three spars,
es on the right side of the spar
at the centerline of the spar
r blade, and the short side of
b of the spar. All three center-
oint in the center of the spar

4. Clear from under the reflector and loosen tension on the lifting sling. After ensuring that the reflector is secure on the mount, remove the lifting sling and the eyebolts that were installed in the feed mounting ring for lifting.

4.6 INSTALLATION OF FEED

The feed mounting assembly is shown in figure 4-54.

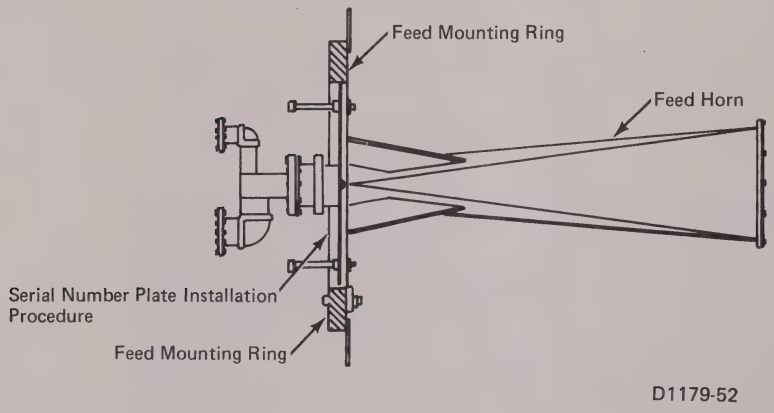


Figure 4-54. Model 8227 - Feed Mounting Assembly

1. To install the feed, position one person on a stepladder in front of the reflector while a second person passes up the feed assembly. With soft-soled shoes, you may step into the reflector.

2. Hold the feed in place while the second person goes behind the reflector and installs the screws (72661) and rear washers (73286) to secure the feed retainer plates. The person in front of the reflector can now install the nuts (81984). These lock nuts should only be screwed down to within 1/4 inch of the retainer plates. No washers are used on the front side of the feed. This installation is shown in figure 4-55.

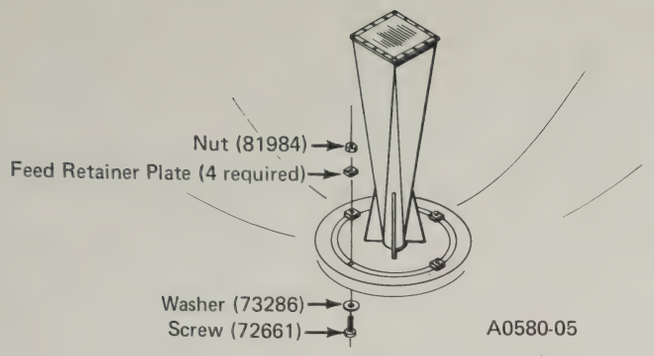


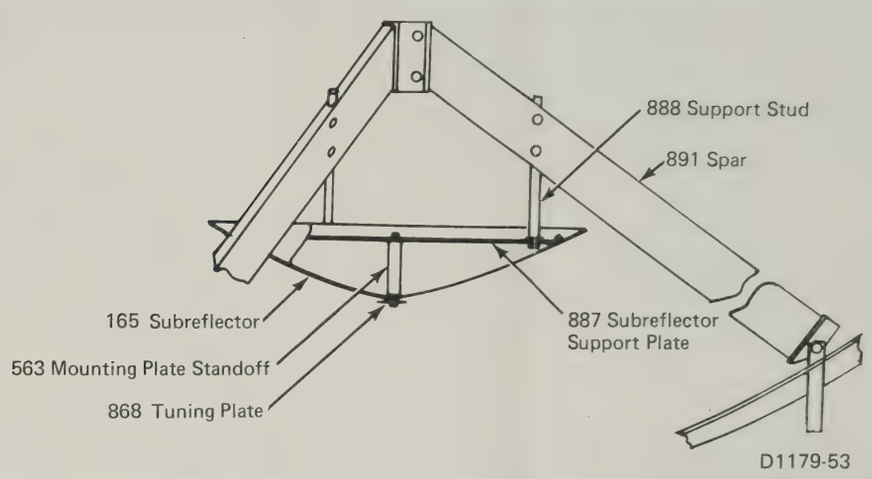
Figure 4-55. Installation of Feed Retainer Plates

4.7 SUBREFLECTOR - PARTS IDENTIFICATION

The following parts list provides detailed illustrations of individual members of the subreflector. Refer to figure 4-56.

ILLUSTRATED PARTS LIST FOR SUBREFLECTOR

Component	Qty	Description	Illustration
0213165	1	Subreflector	
0211891	3	Spar	
0211886	1	Spar Connector	
0211888	1	Support Stud	
0212563	1	Mounting Plate Standoff	
0211887	1	Subreflector Support Plate	
015868	1	Tuning Plate - Model 8226S	



DETAIL A

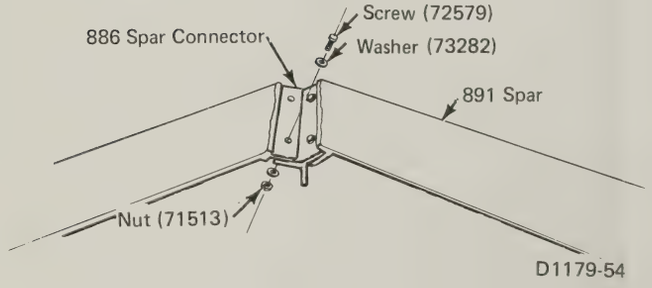


Figure 4-56. Model 8227S Subreflector Assembly

4.8 ASSEMBLY AND INSTALLATION

1. Secure the three 891 spars to the 886 spar connector using screws (72579) with washers (73282) and nuts (71513) as shown in figure 4-56, detail A. Note that for each of the three spars, the tab on the end of the spar goes on the right side of the spar connector blade. This means that the centerline of the spar goes to the right of the connector blade, and the short side of the connector blade faces the tab of the spar. All three centerlines must come together at a point in the center of the spar connector.

2. Install an 888 support stud through the oval hole in each 891 spar using screws (72504), nuts (71508), and washers (73278). This installation is shown in figure 4-57.

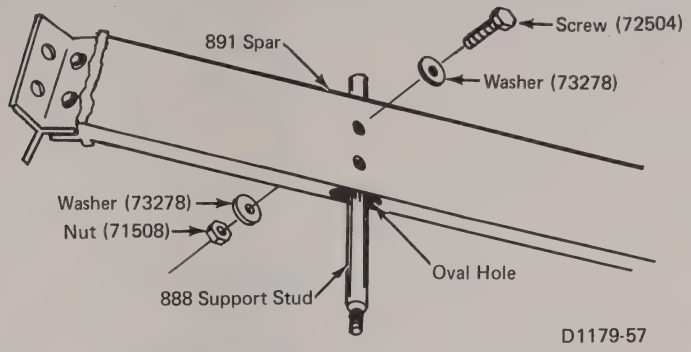


Figure 4-57. Installation of 888 Support Stud Through Oval Hole in 891 Spar

3. Attach the triangular 887 subreflector support plate to the three 888 support studs using nuts (71513) and washers (73282). This installation is shown in figure 4-58.

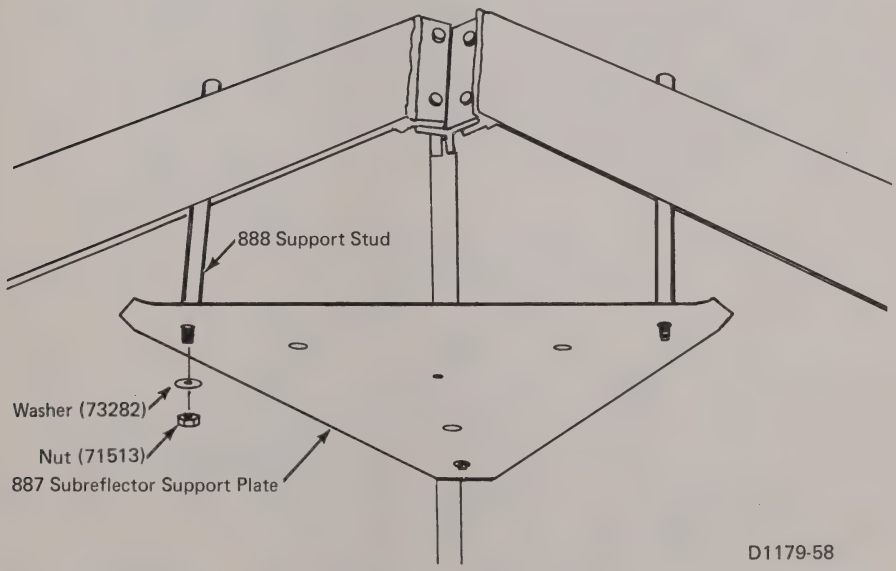


Figure 4-58. Attachment of 887 Subreflector Support Plate to 888 Support Stud

4. Attach the subreflector's 563 mounting plate standoff to the triangular 887 support plate using a screw (72496) and a washer (73278). This installation is shown in figure 4-59.

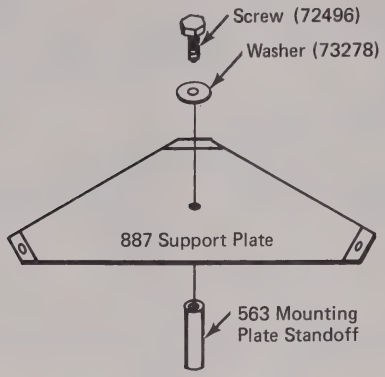


Figure 4-59. Attachment of 563 Mounting Plate Standoff to 887 Support Plate

5. Attach the 165 subreflector to the 887 support plate with three screws (88523), using lock washers (72373), flat washers (73276), and nuts (83457). This installation is shown in figure 4-60.

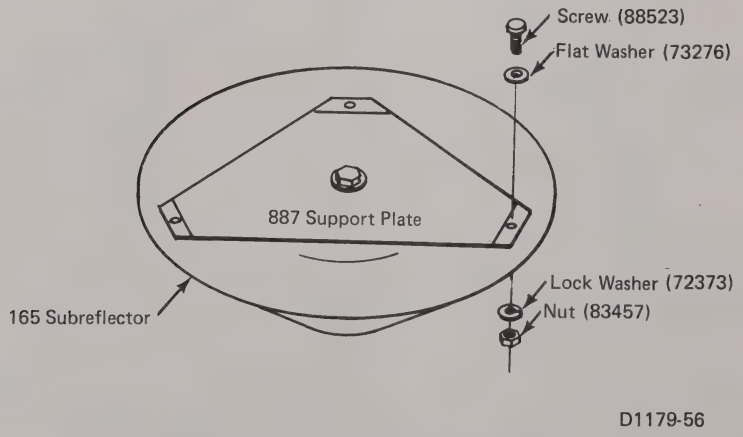


Figure 4-60. Attachment of 165 Subreflector to 887 Support Plate

6. Attach the 868 tuning plate by inserting a screw (72496) through the tuning plate, through a nut (71508), then through the subreflector, and finally into the 563 mounting plate standoff. Hand tighten. This information is shown in figure 4-61.

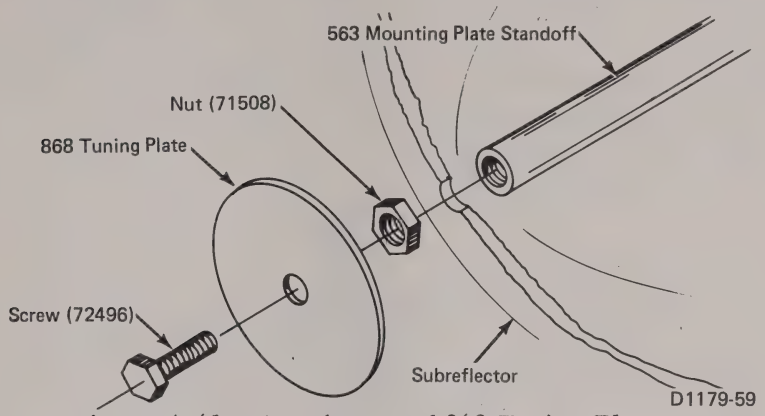


Figure 4-61. Attachment of 868 Tuning Plate to 563 Mounting Plate Standoff

7. Position a stepladder on each side of the reflector so that two people can lift the spar and subreflector assembly into the reflector. Attach the bottom of each 891 spar to the right side of an 860 spar tab using screws (72579), nuts (71513) and washers (73282). This installation is shown in figure 4-62.

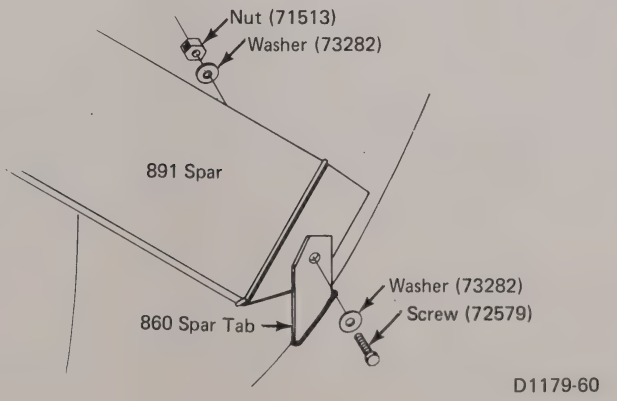


Figure 4-62. Attachment of 891 Spar to 860 Spar Tab

4.9 COMPLETION OF INSTALLATION (Installation of Grounding Cable)

Attach the grounding cable between node bracket 564 and the front foot assembly using a 1-1/2-inch screw (88515) at the node and a 2-inch screw (88527) at the foot. Use nuts (88518) and washers (88536). Washers are to be installed only beneath the nut. This installation is shown in figure 4-63.

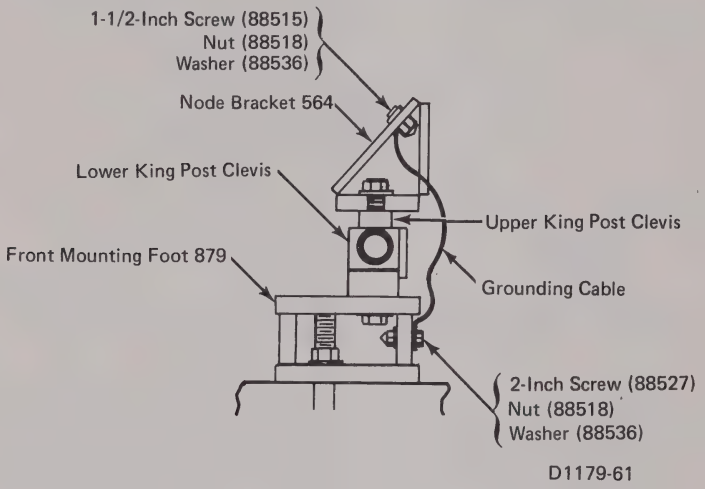


Figure 4-63. Installation of Grounding Cable

SECTION 5
POINTING

5.1 GENERAL

This section contains step-by-step instructions for pointing the Model 8005 Earth Station Antenna. Once the antenna has been accurately pointed for reception of the selected satellite, no operating adjustments are required unless a change in satellite is desired.

The site coordination data presented in graphical form in this section includes the information necessary to point the antenna at the satellite arc. Once the antenna's single axis is established in the correct azimuth and elevation orientation, the antenna can sweep the satellite arc with a minimum dispersion. The single axis strut is then adjusted for acquisition of the selected satellite. The single axis is along the 874 member between node brackets 564 and 565.

5.2 INITIAL POINTING (Rear Legs and Strut Adjustment)

After the antenna is erected and supported by the left leg, right leg, and the single axis strut, refer to the site coordination data sheet sent with the order acknowledgement to obtain the required leg and strut lengths necessary to acquire the desired satellite. (A second copy of the site coordination data sheet should be included with the antenna packing slip.) A sample of the site coordination data sheet and the accompanying pointing instruction sheet are included in this section.

The data sheet is interpreted as follows:

1. Determine the antenna foundation centerline (see figure 5-1 on pointing instruction sheet attached to data sheet) and find this heading in the far left column of the data sheet.

2. The two far right numbers in the row containing the foundation heading are the lengths the left and right legs should be set to (see figure 5-2 on the pointing instruction sheet to identify where these lengths are measured on the legs).

3. The strut length is set depending on the particular satellite the antenna is to look at. Therefore, on the data sheet, find the particular satellite the antenna is to acquire. Go down this column to the row containing the antenna centerline. The number at this intersection is the length the single axis strut should be measured to in order to be in the line of sight of the required satellite. (Refer again to figure 5-2 on the pointing instruction sheet to determine where this length is measured on this strut.)

4. Now install the strut adjustor mechanism onto one of the two telescoping legs or the strut (see figure 5-3) and set each leg and strut to lengths found on the data sheet. The adjustor mechanism is installed by rotating the adjustor screw until the adjustor saddle can fit between the guide blocks of the upper leg and the drive rod fits in the drive holes of the lower leg. Insert the retainer pin into the drive rod to prevent the adjustor from inadvertently disengaging from the leg. Install clamp bar 533 onto the saddle using two screws (88515). Repeat this procedure when preparing to adjust the other leg or the single axis strut.

SAMPLE: POINTING INSTRUCTION SHEET

The attached site coordination data sheet is provided to give the required foundation heading, plus the necessary leg and strut lengths to acquire any desired satellite.

1. The foundation heading is located on the data sheet at the top left below the site information.
2. Left and right leg lengths are given at the far right on the specified heading line.
3. On the same heading line, strut lengths are given for different satellite positions.
4. The legs and strut are identified in figure 5-1.
5. Set the legs and strut as indicated in figure 5-2.
6. Placement of green and blue legs is indicated on site coordination data sheet.

These leg and strut lengths should be preset before the antenna is erected.

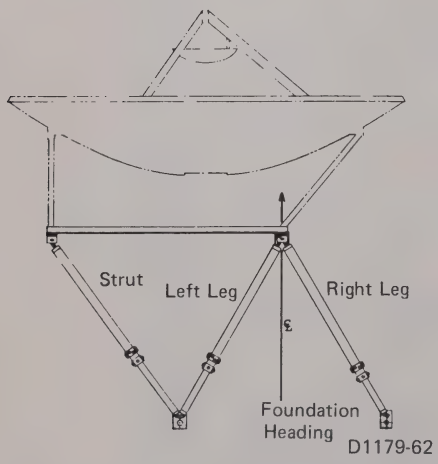


Figure 5-1. Leg and Strut Identification

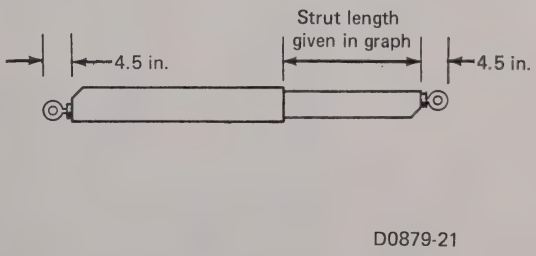


Figure 5-2. Leg and Strut Setting

SAMPLE: SITE COORDINATION DATA SHEET

SITE LOCATION? ATL
SITE LATITUDE? 34
SITE LONGITUDE? 84
FOUNDATION HEADING? 170

Foundation Heading	Strut Lengths for Satellite Positions									Left Leg (Green)	Right Leg (Blue)
	91 WESTAR III	99 WESTAR I	109 ANIK IB	114 ANIK III	119 SATCOM II	123.5 WESTAR II	132	135 SATCOM I	136		
+175	96.5	107.7	120.9	127.1	133.0	138.4	146.8	149.7	150.6	96.7	98.3
+174	97.9	108.9	121.9	128.0	133.9	139.2	147.5	150.3	151.2	95.9	99.1
+173	99.2	110.1	123.0	129.0	134.7	139.9	148.1	150.9	151.8	95.1	100.0
+172	100.5	111.3	124.0	130.0	135.6	140.7	148.8	151.5	152.4	94.3	100.9
+171	101.8	112.5	125.0	130.9	136.5	141.5	149.4	152.1	152.9	93.5	101.9
+170	103.2	113.7	126.1	131.9	137.3	142.3	150.1	152.7	153.5	92.8	102.8
+169	104.5	114.9	127.1	132.8	138.2	143.1	150.7	153.3	154.1	92.1	103.8
+168	105.8	116.2	128.2	133.8	139.1	143.9	151.3	153.8	154.7	91.4	104.7
+167	107.2	117.4	129.3	134.8	140.0	144.7	152.0	154.4	155.2	90.7	105.7
+166	108.5	118.6	130.3	135.8	140.9	145.5	152.6	155.0	155.8	90.1	106.7
+165	109.9	119.8	131.4	136.7	141.8	146.3	153.3	155.6	156.4	89.5	107.7

SAMPLE

Look angles at 135 degrees are: AZ = 245.6 EL = 23.5
The K6 (874) member inclinometer reading is 38.6 deg.
The zero error satellites are 101.0 and 135.0

WARNING

THE SET SCREWS INSTALLED IN EACH LEG DURING ERECTION ARE TO BE REMOVED ONLY AFTER THE STRUT ADJUSTOR MECHANISM IS INSTALLED ON THE LEG. DURING THE COURSE OF THE LEG AND STRUT ADJUSTMENTS, SET SCREWS SHOULD BE USED TO SECURE THE LEGS ON WHICH THE STRUT ADJUSTOR MECHANISM IS NOT INSTALLED. THE SET SCREWS SHOULD ALWAYS BE TIGHTENED TO ONE-HALF TURN BEYOND SNUG TIGHT.

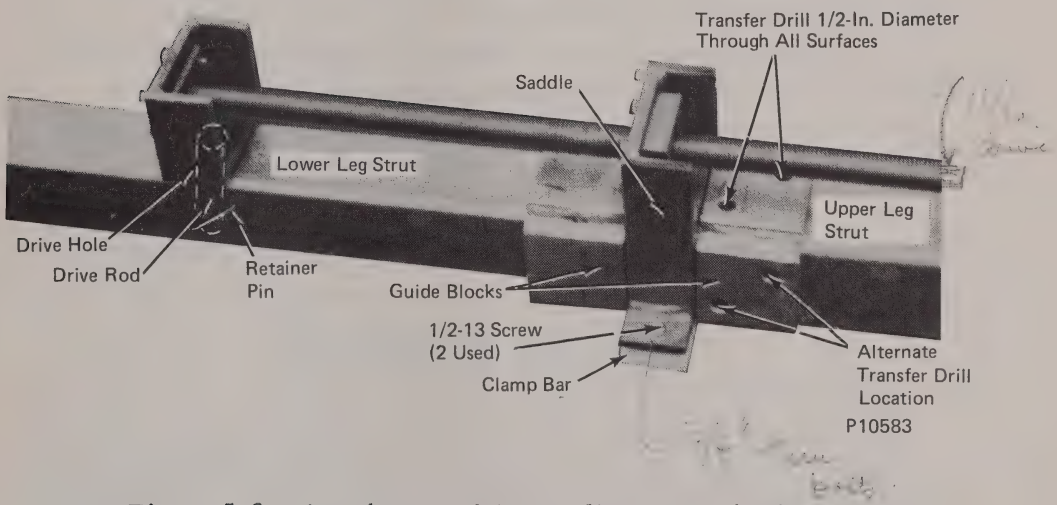


Figure 5-3. Attachment of Strut Adjustor Mechanism

WARNING

DO NOT EXTEND STRUTS TO THE EXTENT THAT RED PAINT SHOWS ON THE INNER STRUT. IF ANY RED PAINT SHOWS, THERE IS DANGER OF THE TELESCOPING STRUTS DISENGAGING.

5.3 LINE OF SIGHT PEAKING

When the leg and single axis strut lengths have been set as described, the antenna's line of sight (LOS) will be on the selected satellite. Follow the steps below to peak the LOS onto the satellite:

1. Use the following procedure in peaking the polarization:
   a. Rotate the feed to an approximate signal peak.
   b. Monitor the C/N meter on receiver or power meter.
   c. Rotate the feed counterclockwise until the signal decreases by 1 dB. Record the signal level. Mark a line on the feed mounting plate and a matching line on the hub.
   d. Rotate the feed clockwise until the meter has passed through the peak and has decreased to the level recorded in step c. Make a mark on the hub in line with the mark on the feed mounting plate.
   e. Measure the semicircle distance between the marks on the hub and calculate the mid-point between these marks. Rotate the feed until the mark on the feed mounting plate is in alignment with the mid-point.
2. Install the adjusting mechanism on the 85- to 145-inch telescoping leg (blue dot) and rotate the lead screw, collapsing the leg until the signal drops 1 dB. Mark this point on the leg, then reverse the screw and raise the leg. Go through the peak and stop when the signal again drops 1 dB. Mark this point also. Readjust the leg so that it is set between these marks, and tighten the set screws.

WARNING

DO NOT EXTEND STRUTS TO THE EXTENT THAT RED PAINT SHOWS ON THE INNER STRUT. IF ANY RED PAINT SHOWS, THERE IS DANGER OF THE TELESCOPING STRUTS DISENGAGING.

3. Transfer the adjusting mechanism to the single axis strut and repeat the peaking procedure described in step 2.

4. Steps 2 and 3 will probably have to be repeated several times to ensure that the antenna is centered on the satellite's main beam.

5. Transfer drill two 1/2-inch-diameter holes through the single axis telescoping strut assembly and each leg. Bolt the assembly together using two 5-inch ASTM A325 bolts (88528), nuts (88518), and four flat washers (88536). Tighten to 76 ft-lbs or one-half turn beyond snug tight. If a change was made in a rear leg length, transfer drill two new 1-1/2-inch-diameter holes to secure the leg at the new length. These holes should be drilled in the sides opposite the original holes unless the adjustment was more than one inch, in which case either side may be used. Install the 5-inch bolts in the new holes and tighten them to 76 ft-lbs or one-half turn beyond snug tight.

CAUTION

INNER AND OUTER TELESCOPING TUBES MUST BE BOLTED TOGETHER WITH 2 HIGH STRENGTH ASTM A325 BOLTS, 1/2-13 UNC 2A, 5 INCHES LONG. DO NOT REMOVE THESE BOLTS, UNLESS ADJUSTOR IS SECURLY CLAMPED ON TUBES. TRANSFER DRILL 2 HOLES, 1/2 INCH DIAMETER AND INSTALL 5 INCH BOLTS BEFORE REMOVING ADJUSTOR.

DO NOT REMOVE BOLTS OR USE ADJUSTOR IN WINDS OVER 30 M.P.H

PN 211827

6. Remove the set screws and the strut adjustor mechanism from the antenna and store them for future use when a satellite change may be desired.

CAUTION

A strut adjustor mechanism left on an antenna is an invitation to tampering.

5.4 FINAL TIGHTENING SEQUENCE

After satellite acquisition is accomplished and the antenna is peaked on the satellite, perform the following tightening sequence on the mount (refer to figure 5-4).

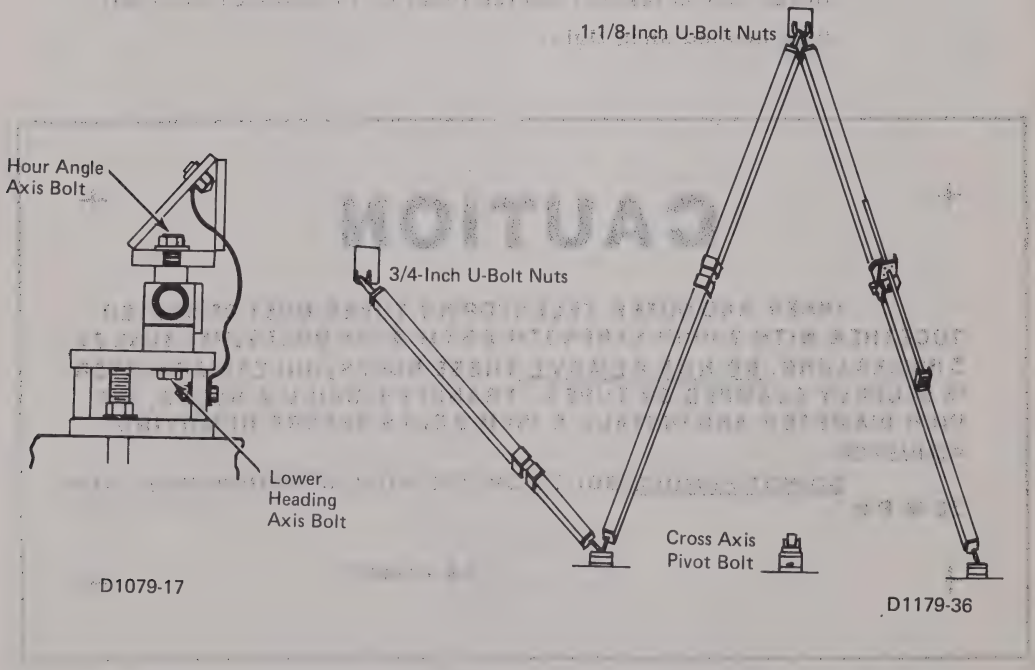


Figure 5-4. Model 8026 Mount Assembly

1. At the front foot, tighten the lower heading axis, 1-inch bolt to 500 ft-lbs (or one-third turn beyond snug tight).

2. At the front foot, tighten the cross axis pivot bolt to 200 ft-lbs (or one-third turn beyond snug tight).

3. At the front foot, tighten hour angle axis bolt to 500 ft-lbs (or one-third turn beyond snug tight).

4. At the top of the hour angle axis at node bracket 565, tighten the two 1-1/8-inch U-bolt nuts to 200 ft-lbs (or one-third turn beyond snug tight using the 1-13/16-inch box-end wrench).

5. At the single axis adjust strut attachment, node bracket 566, tighten the two 3/4-inch U-bolt nuts to 125 ft-lbs (or one-third turn beyond snug tight).

6. At the rear foot double strut terminator, tighten the two 1-1/8-inch U-bolt nuts to 200 ft-lbs (or one-third turn beyond snug tight).

7. At the rear foot single strut terminator, tighten the two 3/4-inch U-bolt nuts to 125 ft-lbs (or one-third turn beyond snug tight).

8. Double check that the three telescoping legs each have their two 1/2-inch through-bolts in place and tightened to 76 ft-lbs (or one-half turn beyond snug tight).

9. Double check that no more than 1/4 inch of clear thread shows on any one of the six eyebolts at the ends of the three telescoping strut assemblies.

10. Double check that the foundation anchor bolt 1-1/4-inch nuts are torqued to 500 ft-lbs (or one-half turn beyond snug tight) at each of the three feet.

5.5 PAINT TOUCH-UP

Clean soiled painted surfaces with water and mild detergent and allow to dry thoroughly. Touch up any scratched areas on the reflector with the white paint (S-A part number 87549) provided in the antenna package. After final tightening, spray all reflector bolts and washers with white paint (S-A part number 87550), also provided.

5.6 FINDING AN ALTERNATE SATELLITE

Determine the single axis strut lengths from the data sheet and follow the steps below to change the antenna pointing to receive a different satellite.

1. Loosen the following axis hardware (refer to figure 5-5).

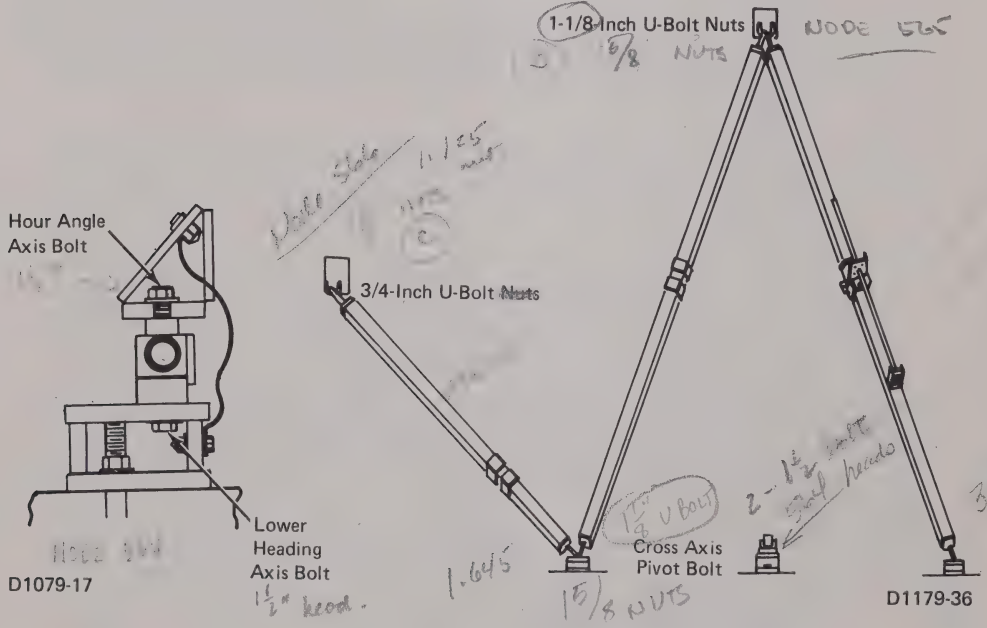


Figure 5-5. Model 8026 Mount Assembly

a. Loosen the 1-inch hour angle axis bolt, at node bracket 564. Retighten snug tight.

b. Loosen the two 1-1/8-inch nuts on the U-bolt at the upper end of the hour angle axis at node bracket 565. Retighten snug tight.

c. Loosen the two 3/4-inch nuts on the U-bolt at the single axis strut attachment, node bracket 566. Retighten snug tight.

d. Loosen the two 1-1/8-inch nuts on the U-bolt at the double strut terminator rear foot. Retighten snug tight.

Note

When changing the length of a leg or strut in which the 5-inch through-bolts have been installed, install the adjustor mechanism and turn the lead screw enough to take the weight of the antenna off the bolts before attempting to remove them.

2. If a change was made in a rear leg length when the antenna was peaked onto the original satellite (paragraph 5.3), install the strut adjustor mechanism on that leg and return it to the length set by the first pair of through holes.

WARNING

DO NOT EXTEND STRUTS TO THE EXTENT THAT RED PAINT SHOWS ON THE INNER STRUT. IF ANY RED PAINT SHOWS, THERE IS DANGER OF THE TELESCOPING STRUTS DISENGAGING.

Install either the set screws or the 5-inch bolts and remove the strut adjustor mechanism.

3. Install the strut adjustor mechanism on the single axis strut and adjust it to the length specified by data sheet. Do not drill holes until the antenna is peaked on the satellite.

4. Peak the antenna on the new satellite LOS as described in paragraph 5.3. If a rear leg is adjusted to peak the LOS, make the adjustment in the leg that was not drilled for the original peaking procedure.

5. Transfer drill the single axis strut and the rear leg in the new locations and install 5-inch bolts. Tighten the bolts to 76 ft-lbs or one-half turn beyond snug tight.

6. Repeat the tightening sequence described in paragraph 5.4.

7. Remove the set screws and strut adjustor mechanism and store them for future use.

SECTION 6
MAINTENANCE

6.1 GENERAL

This section describes the periodic inspection procedures recommended for proper maintenance of the Model 8005 Earth Station Antenna. Corrosion prevention procedures and paint touch-up are also included.

These instructions are written for trained, experienced technicians. Do not attempt to service or repair the antenna unless you are authorized to do so. At no time should substitute parts be used in any repair of this antenna. Use only authorized Scientific-Atlanta parts. Any alterations of the antenna not specifically described in this instruction manual are unauthorized by Scientific-Atlanta and could void the warranty.

6.2 PERIODIC INSPECTION

Initially, and at least every six months, the following preventive maintenance steps should be performed.

1. Check all structural fasteners and make sure they are all in place and not obviously loosened.
2. Check the foundation and the mount for structural failure and repair any damaged parts.
3. Check for corrosion. If significant corrosion is found, it should be eliminated as described in section 6.3.

6.3 TOUCH-UP PAINTING

6.3.1 Non-Reflective Surfaces

If significant corrosion is found on any part of the antenna mount or backing structure, it should be repaired immediately as follows:

1. Remove loose scale with a wire brush.
2. Clean area with petroleum solvent.
3. If the base metal is aluminum, apply a good quality paint such as Rust-Oleum No. 2766, white, for a gloss finish and No. 2764, white, for a flat finish. If the base metal is steel, apply a zinc-rich paint such as No. 740 Zinc Rich Cold Galvanizing Compound manufactured by Sprayon Products, Inc., Bedford Heights, Ohio. Either of these paints or their equivalent can be purchased at any good commercial paint store. If the color match is important for the galvanized parts, use a top coat of bumper chrome such as Whiz-On Spray Enamel No. 8803.

6.3.2 Reflective Surfaces

The reflective surfaces of the antenna require a special paint (Hi-Reflectance flat white, No. 6) manufactured by the Triangle Paint Company, 2222 Third Street, Berkeley, California 94710. Since this paint may be difficult to obtain, Scientific-Atlanta has prepared a Paint Touch-Up Kit specifically for maintenance of the reflective surfaces of our Series 8000 Reflectors. This kit contains all the materials necessary for surface preparation and application. The Touch-Up Kit (S-A Part No. 159158) is an option and can be ordered from Scientific-Atlanta. The following materials are included:

Solvent: toluene or naptha
Detergent: Vel (Colgate-Palmolive Co.)
Thinner: XYLENE
Sandpaper: 320 grit wet/dry
Cheesecloth
1-inch paint brush
Wash primer: MIL-P-14504
Zinc chromate: Fed Spec. TT-P-1757 Composition G
Top coat: Hi-Reflectance Flat White No. 6

To touch up the painted surface of the reflector, follow the steps below:

1. Clean the entire area around the damaged portion with solvent cleaners, then wash thoroughly with detergent and water. Rinse well and dry with clean cheesecloth. Do not re-coat for 30 minutes or until surface is completely dry.

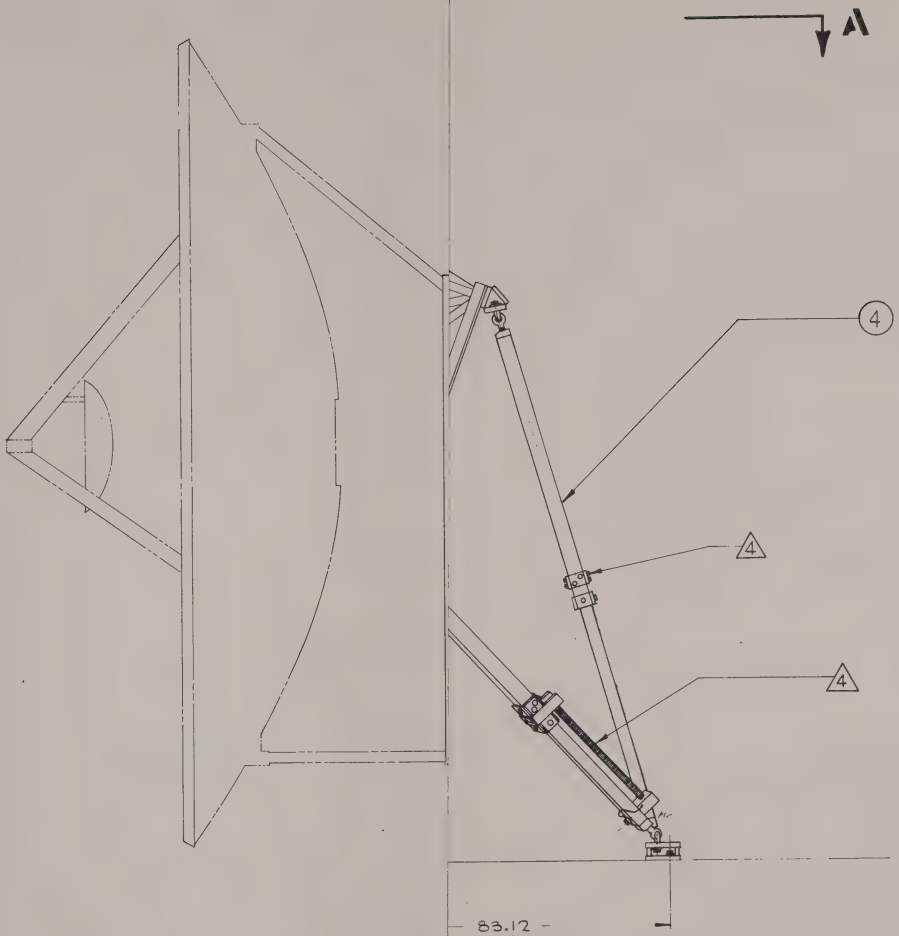
2. Damaged coatings may be repaired by fairing the damaged edges with 320 (or finer) grit sandpaper. Primer system must be reapplied if damage extends to bare metal.

3. If re-priming is required, apply a thin coat of wash primer and allow to dry for 15 to 30 minutes. Then apply a full coat of zinc chromate primer and allow to dry for 2 hours. If the surface is not smooth after drying, then sand with 320 grit paper lubricated with toluene. Remove dust with a tack cloth (cheesecloth lightly coated with toluene).

SECTION 7
DRAWINGS AND PARTS LISTS

This section contains drawings and parts lists for the Model 8005 Earth Station Antenna.

When ordering parts from Scientific-Atlanta, always include the Scientific-Atlanta model number and name, unit serial number, subassembly name, Scientific-Atlanta component number, and the manufacturer's part number.



ASSEMBLY W211742 EARTH TER

ITEM	COMPONENT	
1	0211780	SUBREFLEC
2	C211770	FEED MTG
3	C211750	REFLECTOR
4	C21239C	MOUNT ASS
800	0211800	FOUNDATIO
801	0211765	OUTLINE D
802	0211802	FOUNDATIO
803	C211766	NOISE TEM
900	C213140	FOUNDATIO
901	C21308C	HOIST KIT
902	0211807	OUTRIGGER
903	0213250	TEMPLATE
904	0212589	ANCHOR BO
905	C159158	PAINT TCU

UNDATION DATA.

NE DIMENSIONS.

8005 SERIES.

005 SERIES.

EARTH TERMINALS.

UISM OF AUTENNA.

NING OF REFLECTOR

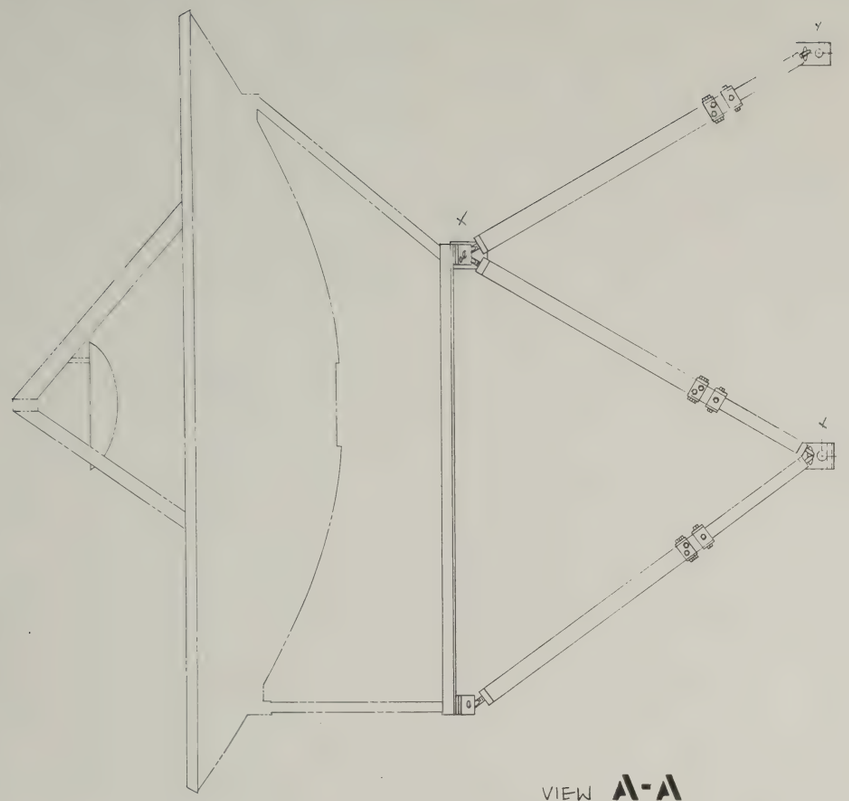
USING $\frac{1}{4}$ INCH DRILL.

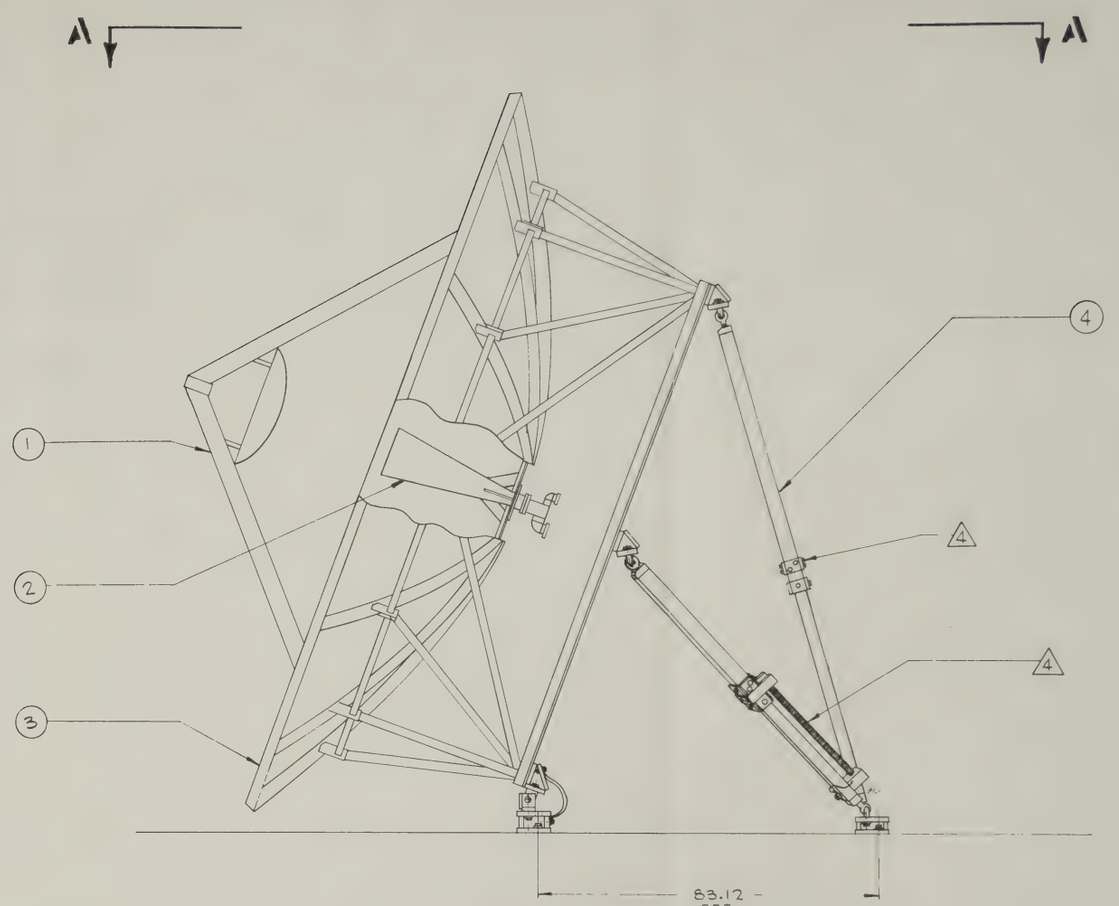
S, ASTM A325 HIGH

UTS AND WASHERS

211742C-211749C

Figure 7-1. Model 8005 Earth Station Antenna Assembly





ASSEMBLY W211742 EARTH TERMINAL ASSY,4.6 M ANT-MODEL 8005

ITEM	COMPONENT	DESCRIPTION
1	0211780	SUBREFLECTOR ASSY-4.6 M ANT
2	C211770	FEED MTG ASSY-4.6 M ANT
3	0211750	REFLECTOR ASSY-4.6 M ANT
4	C21239C	MOUNT ASSY-MODEL 8026
8C0	0211800	FOUNDATION PLAN,4.6 M EARTH TERM-8005
8C1	0211765	OUTLINE DIM,4.6 M EARTH TERM-MOD 8005
8C2	0211802	FOUNDATION DATA,4.6 M ANT-MOD 8005
8C3	0211766	NOISE TEMP CHART-4.6 M ANT
9C0	C213140	FOUNDATION ASSY-4.6 M ANT
9C1	C21308C	HOIST KIT ASSY-4.6 M ANT
9C2	0211807	OUTRIGGER BASE MOUNT ASSY-4.6 M ANTENNA
9C3	0213250	TEMPLATE ASSEMBLY-4.6 M MOUNT
9C4	0212589	ANCHOR BOLT-4.6 M ANTENNA
9C5	C159158	PAINT TOUCH-UP KIT-8000 SERIES REFL

211742C-211749C

NOTE:

1. REFER TO DRAWING NO. 211800 FOR FOUNDATION DATA.
2. REFER TO DRAWING NO. 211765 FOR OUTLINE DIMENSIONS.
3. 211859, MASTER HARDWARE LIST FOR 8005 SERIES.
   211849, MASTER SHIPPING LIST FOR 8005 SERIES.
   211740, MASTER LIST OF 8005 SERIES EARTH TERMINALS.

4. SATELLITE ALIGNMENT ADJUSTMENT MECHANISM OF ANTENNA. MECHANISM IS TO BE REMOVED AFTER POSITIONING OF REFLECTOR AND STRUTS MUST BE LINE DRILLED THROUGH USING $\frac{1}{4}$ INCH DRILL. STRUTS MUST THEN BE BOLTED TOGETHER USING, ASTM A325 HIGH STRENGTH, $\frac{1}{4}$-13 UNC2B BOLT, 5 INCHES LONG, NUTS AND WASHERS (2 BOLTS ARE REQUIRED).

Figure 7-1. Model 8005 Earth Station Antenna Assembly

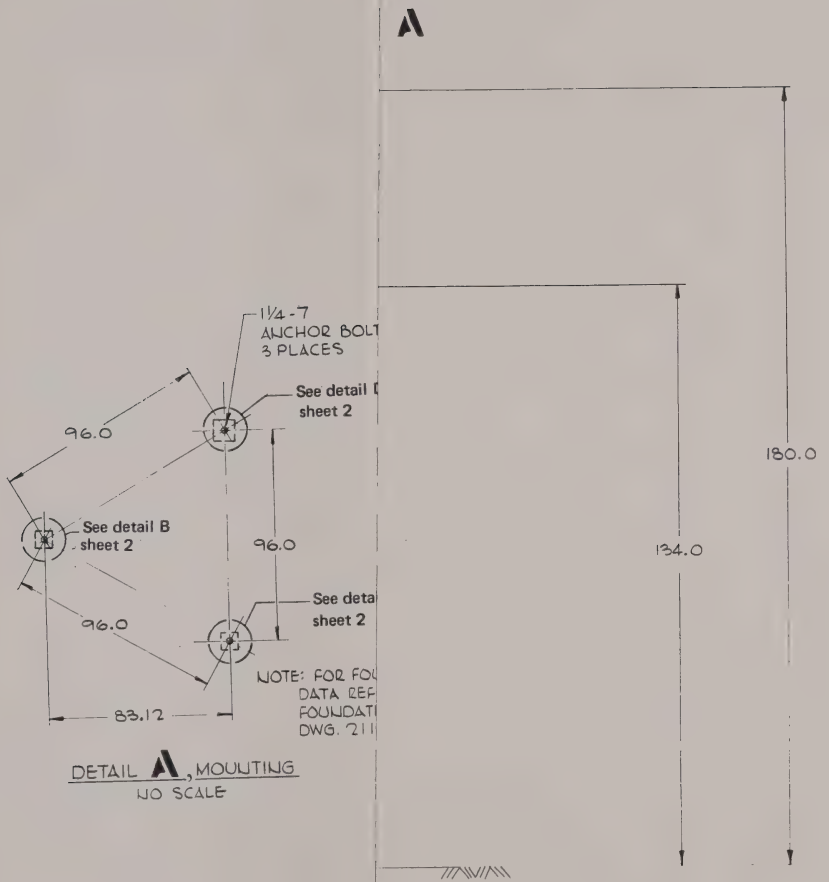
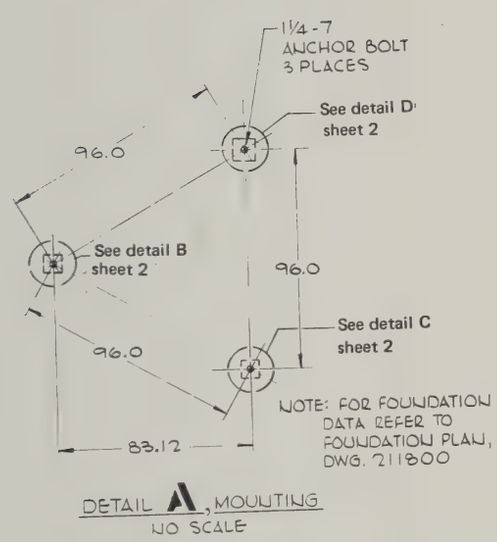
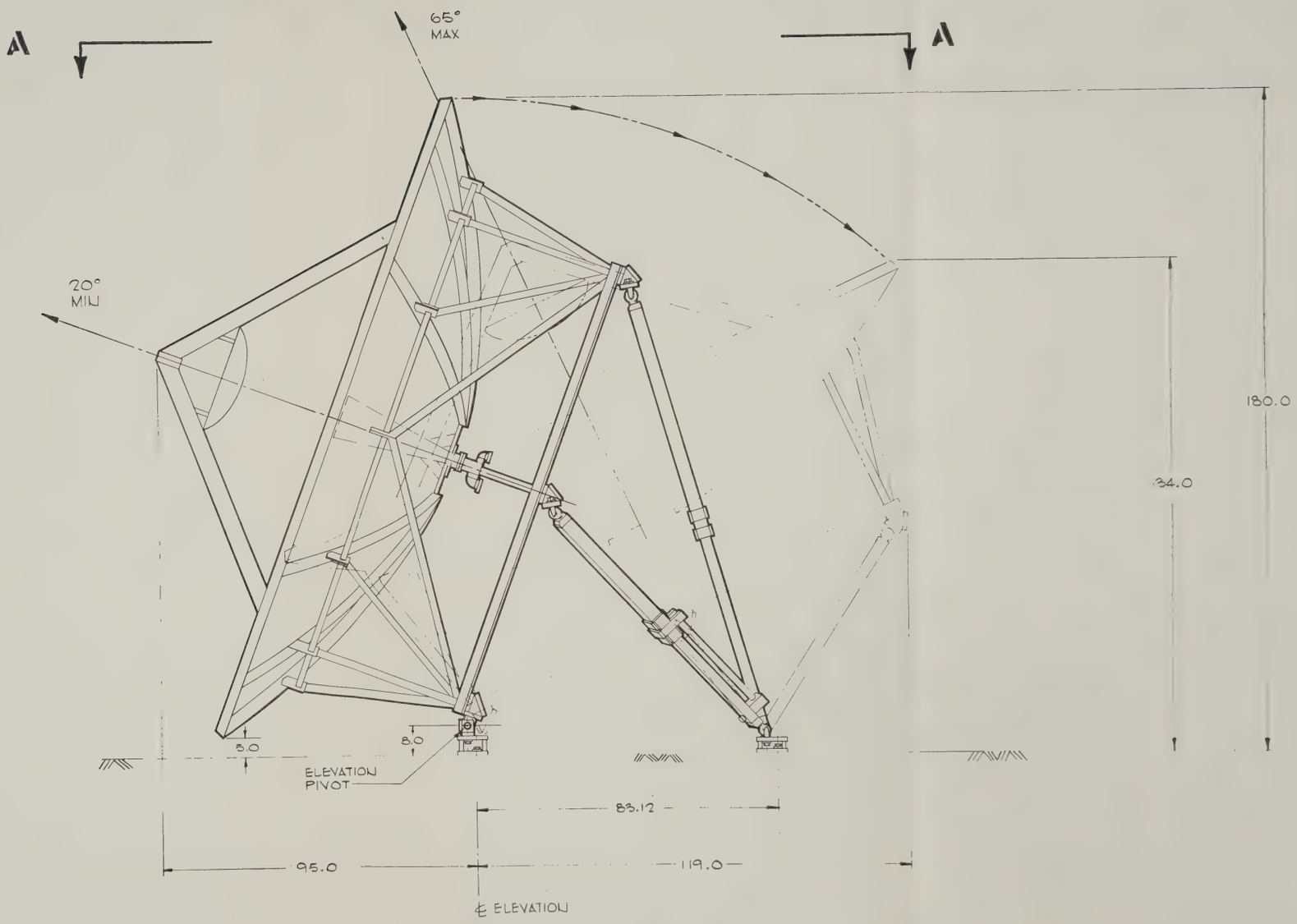


Figure 7-2. Outline Dimensions, Model 8005 Earth Station Antenna (Sheet 1 of 2)



DETAIL A, MOUNTING
NO SCALE



211765B

Figure 7-2. Outline Dimensions, Model 8005 Earth Station Antenna (Sheet 1 of 2)

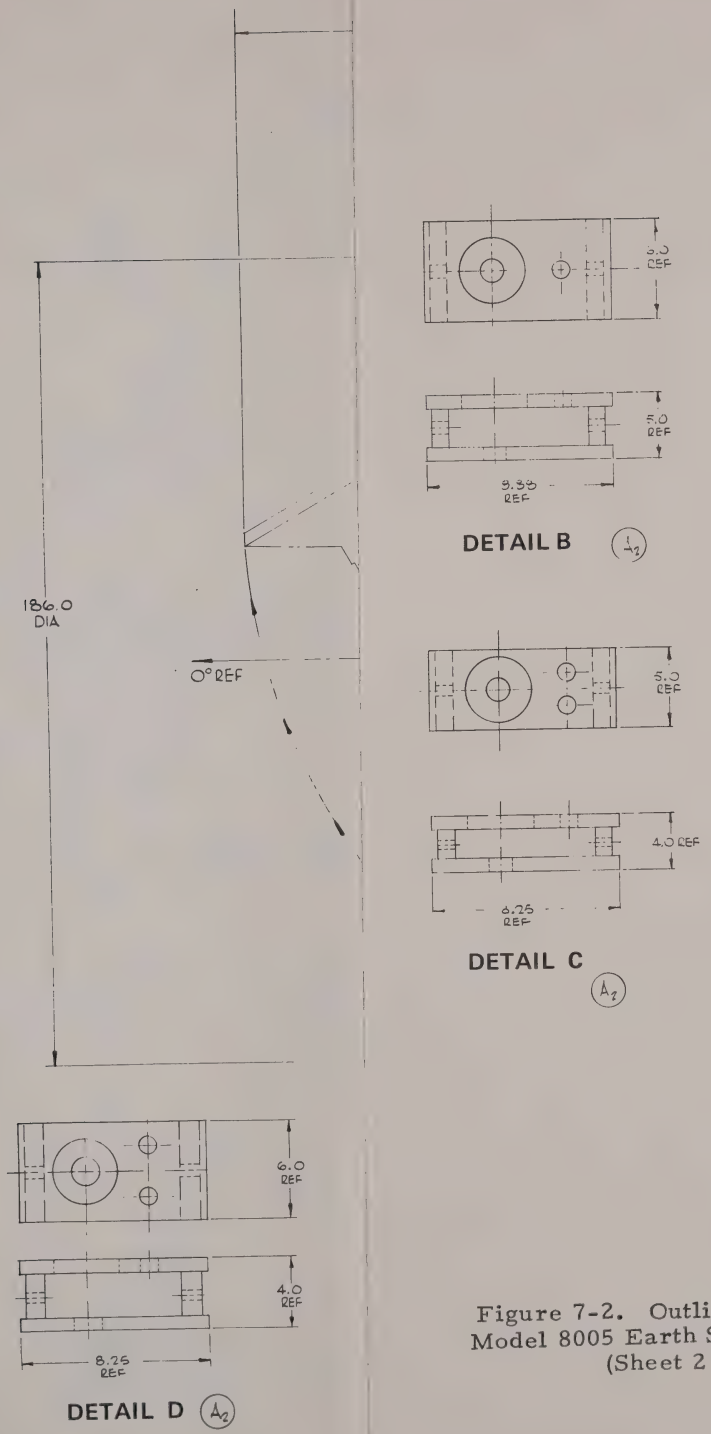
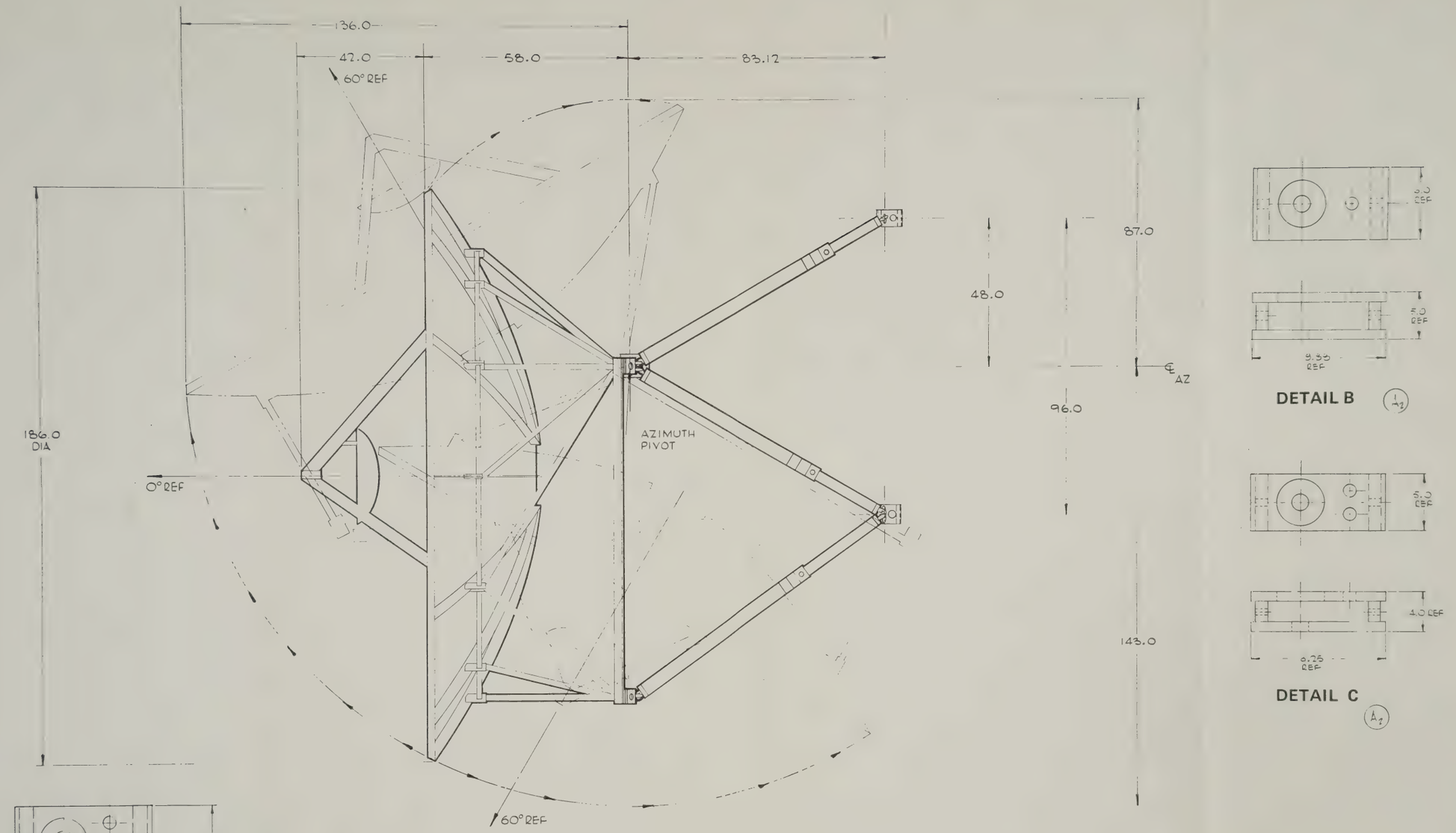


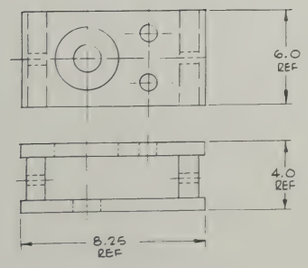
Figure 7-2. Outline Dimensions, Model 8005 Earth Station Antenna (Sheet 2 of 2)

25A091H



DETAIL B (A2)

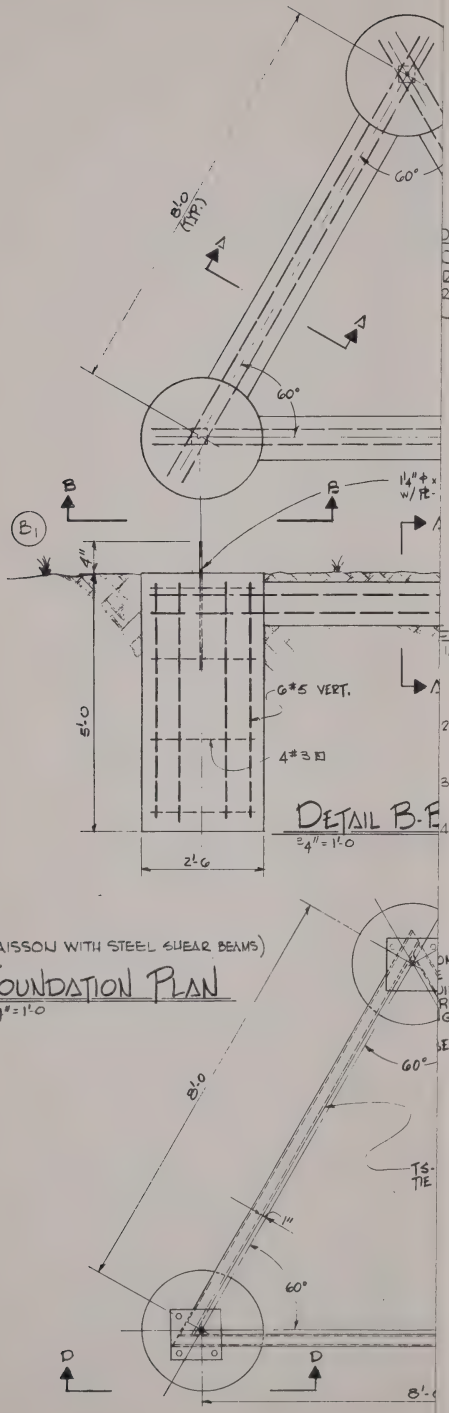
DETAIL C (A2)



DETAIL D (A2)

211765B

Figure 7-2. Outline Dimensions, Model 8005 Earth Station Antenna (Sheet 2 of 2)



ORTANT NOTICE

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R WARRANT THAT ANY PARTICULAR DESIGN
R SIZE OF FOUNDATION IS APPROPRIATE FOR
NY PARTICULAR LOCALITY OR INSTALLATION.

SCIENTIFIC - ATLANTA, INC

ERAL NOTES:

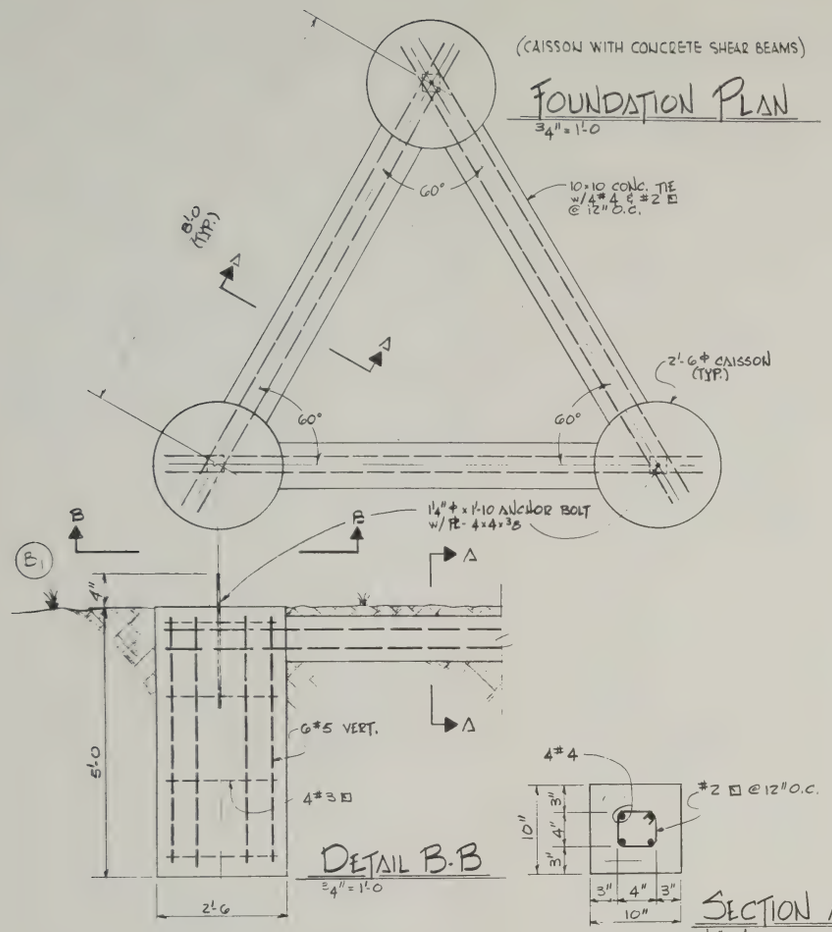
1. PROPER ELECTRICAL GROUNDING SHALL BE PROVIDED BY THE INSTALLING CONTRACTOR TO MEET LOCAL APPLICABLE CODES. THIS MAY TAKE THE FORM OF A BURIED GRID OR A SUITABLE COPPER STAKE, DEPENDING ON LOCAL SOIL CONDITIONS. THE MOUNT SHALL BE ELECTRICALLY CONNECTED TO THE GROUND.
2. PROVISIONS MUST BE MADE TO PROVIDE SUITABLE SUPPORT FOR POWER, RF AND CONTROL CABLES EITHER BY BURIED CONDUIT OR OVERHEAD RACEWAY. IF CONDUIT IS SUPPLIED IT SHALL BE AT LEAST 3 INCHES DIAMETER.
3. LIGHTNING ARRESTORS MUST BE PROVIDED ACROSS ALL CABLES LEAVING ANTENNA PER APPLICABLE LOCAL CODES AND N.F.P.A. CODES.
4. REFER TO DWG 211765 FOR INFORMATION ON OUTLINE AND BASIC DIMENSIONS.

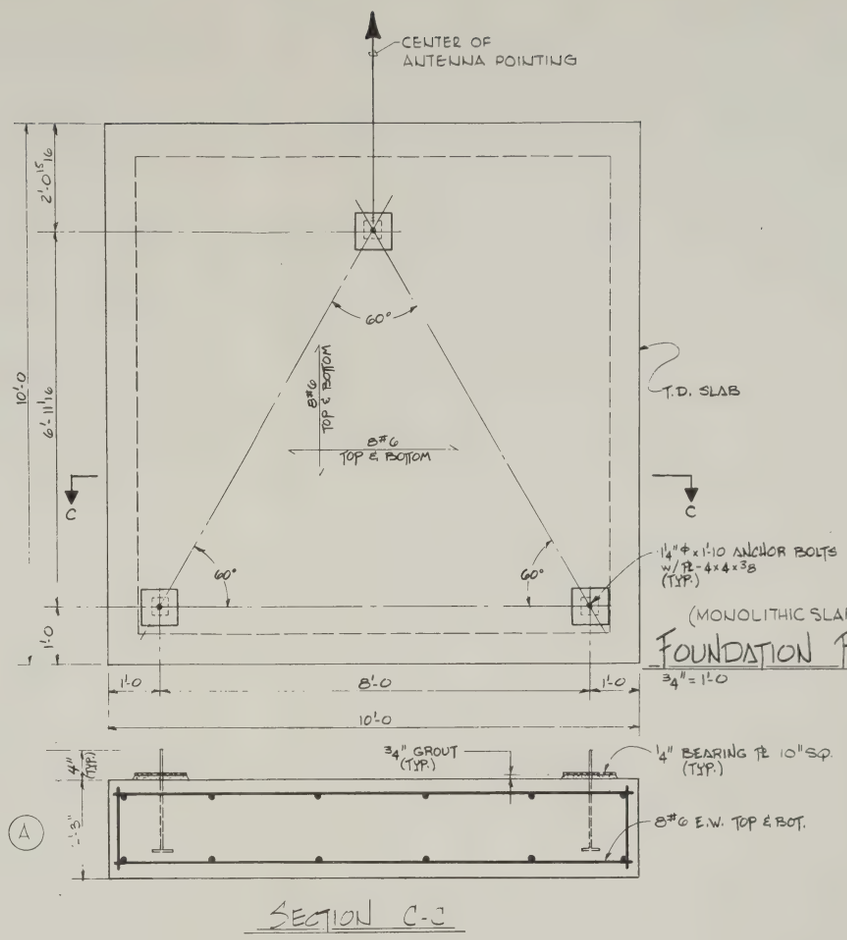
(CAISSON WITH STEEL SHEAR BEAMS)

ONFORM WITH ASTM A-615-68.
E 60.
UILDING CODE STANDARD WEIGHT
REGTH AT 28 DAYS.
G CAPACITY SHALL NOT BE LESS

E ASTM A-36

Figure 7-3. Typical Foundation Plan for Model 8005 Earth Station Antenna





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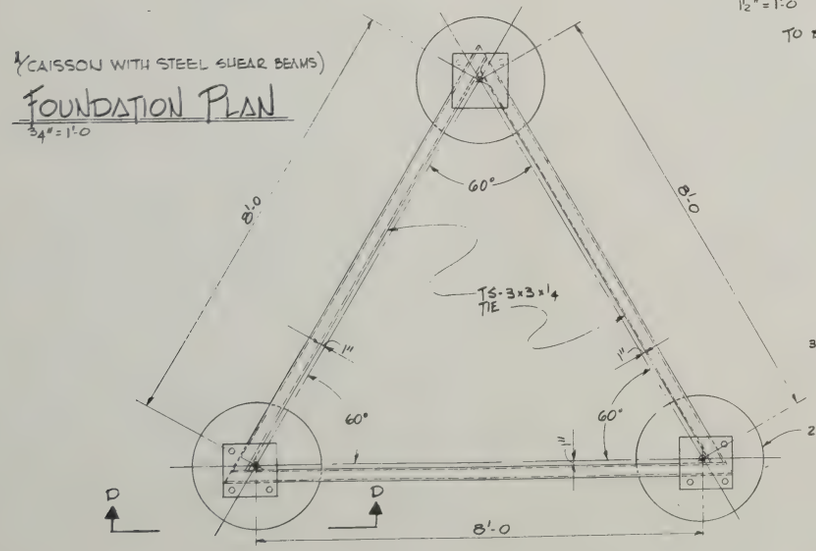
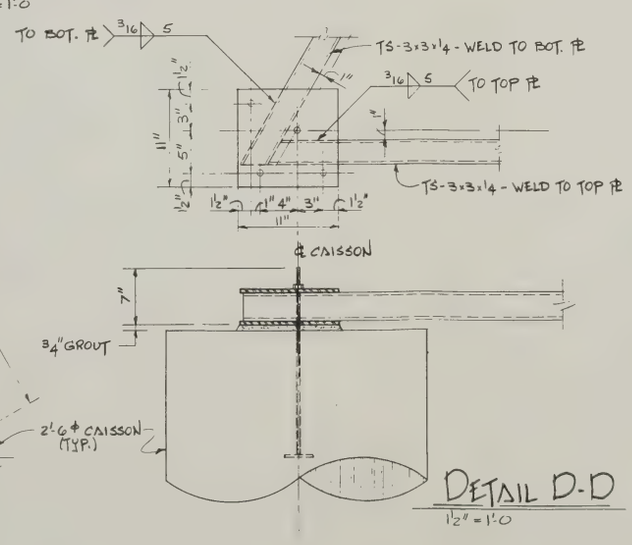
2. PROVISIONS MUST BE MADE TO PROVIDE SUITABLE SUPPORT FOR POWER, RF AND CONTROL CABLES EITHER BY BURIED CONDUIT OR OVERHEAD RACEWAY. IF CONDUIT IS SUPPLIED IT SHALL BE AT LEAST 3 INCHES DIAMETER.
3. LIGHTNING ARRESTORS MUST BE PROVIDED ACROSS ALL CABLES LEAVING ANTENNA PER APPLICABLE LOCAL CODES AND N.E.C.P.A. CODES.
4. REFER TO DWG 211765 FOR INFORMATION ON OUTLINE AND BASIC DIMENSIONS.





NOTES:

1. REINFORCING BARS SHALL CONFORM WITH ASTM A-615-68. ALL BARS SHALL BE GRADE 60.
2. ALL CONCRETE SHALL BE BUILDING CODE STANDARD WEIGHT 3000 P.S.I COMPRESSIVE STREGTH AT 28 DAYS.
3. MINIMUM SAFE SOIL BEARING CAPACITY SHALL NOT BE LESS THAN 2000 PSF
4. STRUCTURAL STEEL SHALL BE ASTM A-36

211800B

Figure 7-3. Typical Foundation Plan for Model 8005 Earth Station Antenna

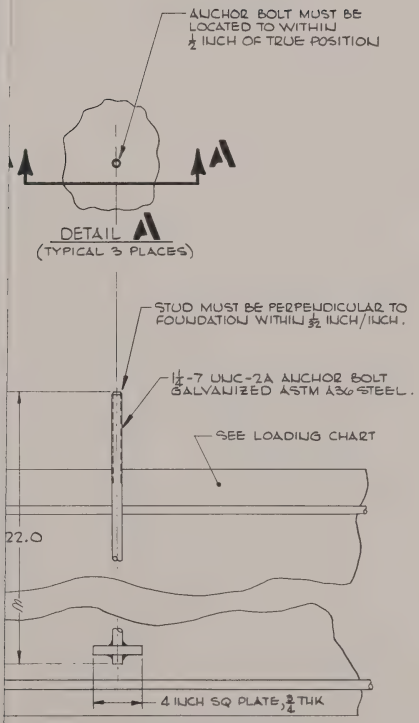

ANCHOR BOLT MUST BE LOCATED TO WITHIN ½ INCH OF TRUE POSITION
A
DETAIL A
(TYPICAL 3 PLACES)
STUD MUST BE PERPENDICULAR TO FOUNDATION WITHIN 1/32 INCH/INCH.
1¼-7 UNC-2A ANCHOR BOLT GALVANIZED ASTM A36 STEEL.
SEE LOADING CHART
22.0
4 INCH SQ PLATE, ¾ THK
SECTION A-A

Figure 7-4. Foundation Data for Model 8005 Earth Station Antenna

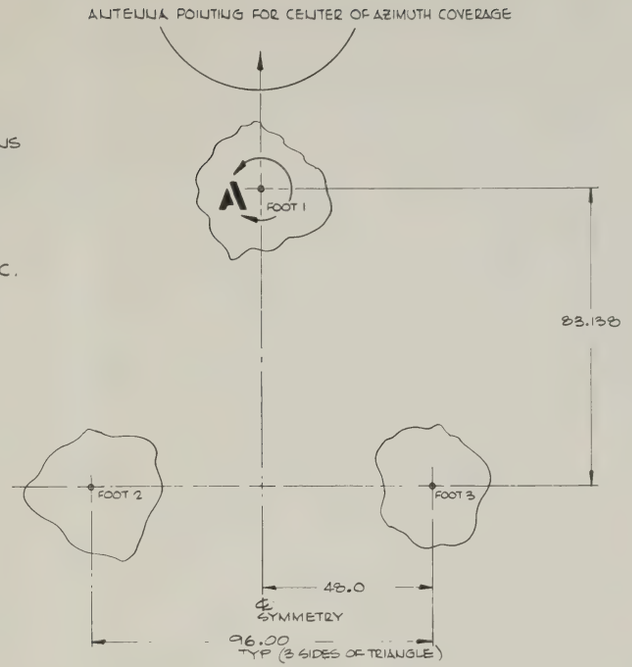
IMPORTANT NOTICE

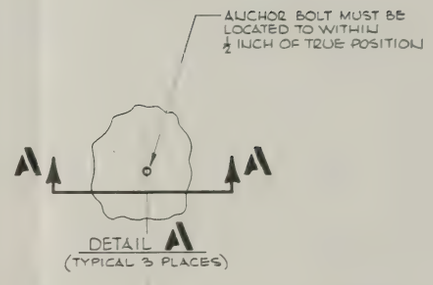
SINCE SOIL CONDITIONS, BUILDING CODES AND OTHER FACTORS VARY AMONG VARIOUS LOCALITIES, THOSE INSTALLING ANTENNA MOUNTS ARE CAUTIONED TO SECURE PROFESSIONAL ENGINEERING SERVICES FOR THE DESIGN AND CONSTRUCTION SUPERVISION OF ANTENNA MOUNT FOUNDATIONS.

THIS ANTENNA MOUNT STUD ORIENTATION AND WORST CASE LOADING TABLE IS FURNISHED TO BE USED TO ESTABLISH REQUIRED DIMENSIONS AND LOCATION OF STUDS RELATIVE TO EACH OTHER AND AS A GUIDE TO ANTENNA MOUNT CHARACTERISTICS THAT MUST BE CONSIDERED IN THE PROFESSIONAL DESIGN OF A FOUNDATION.

SCIENTIFIC-ATLANTA, INC. DOES NOT REPRESENT OR WARRANT THAT ANY PARTICULAR DESIGN OR SIZE OF FOUNDATION IS APPROPRIATE FOR ANY PARTICULAR LOCALITY OR INSTALLATION.

SCIENTIFIC-ATLANTA, INC.



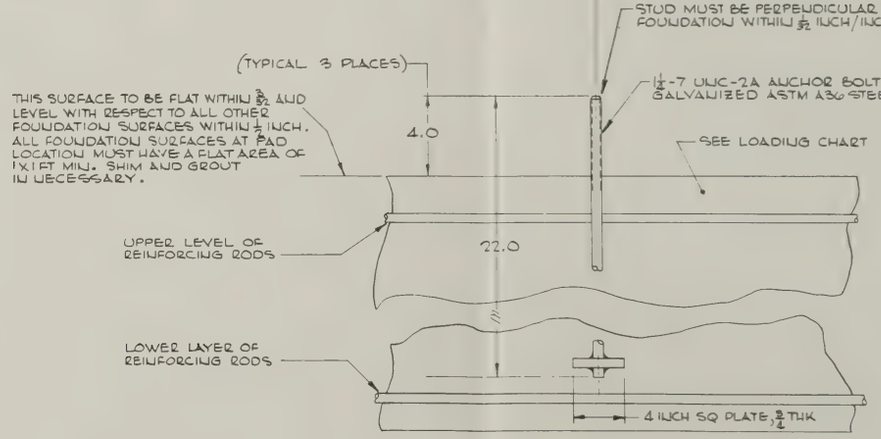


NOTES:

1. PROPER ELECTRICAL GROUNDING SHALL BE PROVIDED BY THE INSTALLING CONTRACTOR TO MEET LOCAL APPLICABLE CODES. THIS MAY TAKE THE FORM OF A BURIED GRID OR A SUITABLE COPPER STAKE, DEPENDING ON LOCAL SOIL CONDITIONS. THE MOUNT SHALL BE ELECTRICALLY CONNECTED TO THIS GROUND.
2. PROVISIONS MUST BE MADE TO PROVIDE SUITABLE SUPPORT FOR POWER, R.F. AND CONTROL CABLE EITHER BY BURIED CONDUIT OR OVERHEAD RACEWAY. IF CONDUIT IS SUPPLIED IT SHALL BE AT LEAST 3 INCHES DIAMETER.
3. LIGHTNING ARRESTORS MUST BE PROVIDED ACROSS ALL CABLES LEAVING ANTENNA PER APPLICABLE LOCAL CODES AND N.F.P.A. CODES.

LOADING CHART
MAXIMUM FOUNDATION LOADS FOR 110 MPH WIND

I.	OVERALL FOUNDATION (3 ANCHORS ACTING TOGETHER IN MONOLITHIC SLAB) a.) MAX. OVERTURNING : 60,000 FT. LB. b) MAX. TWISTING ABOUT VERT. AXIS : 69,000 FT. LB. c) MAX. HORIZONTAL SHEAR : 9,800 LBS.
II.	MAXIMUM INDIVIDUAL ANCHOR BOLT LOADS a) MAX. VERTICAL : 8,500 LBS. b) MAX. HORIZONTAL : 10,400 LBS.


(TYPICAL 3 PLACES)
THIS SURFACE TO BE FLAT WITHIN 3/32 AND LEVEL WITH RESPECT TO ALL OTHER FOUNDATION SURFACES WITHIN ½ INCH. ALL FOUNDATION SURFACES AT PAD LOCATION MUST HAVE A FLAT AREA OF 1X1 FT MIN. SHIM AND GROUT IF NECESSARY.
4.0
STUD MUST BE PERPENDICULAR TO FOUNDATION WITHIN 3/32 INCH/INCH.
1¼-7 UNC-2A ANCHOR BOLT GALVANIZED ASTM A36 STEEL.
SEE LOADING CHART
UPPER LEVEL OF REINFORCING RODS
22.0
LOWER LAYER OF REINFORCING RODS
4 INCH SQ PLATE, ¾ THK

SECTION A-A

NOTE:
TOTAL STIFFNESS OF FOUNDATION AND SOIL TOGETHER MUST BE SUCH AS TO GIVE A MAXIMUM OF 0.2° TILT OF THE FOUNDATION ANCHORS IN A 110 MPH WIND.

Figure 7-4. Foundation Data for Model 8005 Earth Station Antenna

211802

ASSEMBLY W211752		REFLECTOR ASSY,4.6 M ANTENNA-MOD 8125
ITEM	COMPONENT	----------DESCRIPTION----------
1	0211737	MTG RING-4.6 M ANT
2	0211860	MBR NO. D7,BACK STRUCT-4.6 M ANT
3	0211861	MBR NO. A1,BACK STRUCT-4.6 M ANT
4	0211862	MBR NO. B1,BACK STRUCT-4.6 M ANT
5	0211863	MBR NO. C3,BACK STRUCT-4.6 M ANT
6	0211865	MBR NO. F4,BACK STRUCT-4.6 M ANT
7	0211866	MBR NO. E4,BACK STRUCT-4.6 M ANT
8	0211867	MBR NO. G5,BACK STRUCT-4.6 M ANT
9	0211868	MBR NO. I1,BACK STRUCT-4.6 M ANT
10	0211869	MBR NO. H1,BACK STRUCT-4.6 M ANT
11	0211870	MBR NO. J2,BACK STRUCT-4.6 M ANT
14	0213163	PANEL,DECAL-4.6 M REFL
15	0211874	MBR NO. K6,BACK STRUCT-4.6 M ANT
16	0211875	PANEL,4.6 M REFL-MOD 8125
17	0211878	SPAR PANEL,4.6 M REFL-MOD 8125
21	0212625	SHIELD,LNA-4.6 M ANT
22	0163476	CORROSION PREVENTION KIT-MOD 8126&8127
23	0211634	SERIAL NO. PLATE INSTALLATION PROCEDURE
200	0088513	SCREW 5/16-18 X 1.0 CAP,HEX HD,ZINC PLT
201	0088519	WASHER- 5/16- .344 .688 .065 ZN PLT STL
202	0088517	NUT 5/16-18 UNC-2B GRADE 5 STL ZINC PLT
203	0088516	SCREW 1/2-13 X 1 3/4 CAP HEX HD ZINC PLT
204	0088515	SCREW 1/2-13 X 1 1/2 CAP,HEX HD,ZINC PLT
205	0088521	WASHER- 1/2- .531 1.062 .095 ZN PLT STL
206	0088518	NUT 1/2-13 UNC-2B GRADE 5 STL ZINC PLT
207	0088514	SCREW 3/8-16 X 1.0 CAP,HEX HD,ZINC PLT
208	0088520	WASHER- 3/8- .406 .812 .065 ZN PLT STL
209	0021029	BUTTON,NYLON,CHASSIS SLIDE,ACESSORY
210	0085509	BEARING CAM FOLLOWER 3/4 OD 3/8-24 STUD
211	0088541	SCREW 10-24 X 3/8 PAN HD, ZINC PLT STL
212	0088535	WASHER-NO.10- .219 .500 .049 ZINC PLT
213	0088165	WASHER NO. 10 LOCK, SPLIT, ZN PLT STL
214	0088166	SCREW 5/16-18 X 1 1/4 CAP,HEX HD,ZN PLT
215	0088525	SCREW 1/2-13 X 1.0 CAP,HEX HD,ZINC PLT
216	0213106	SCR,PAN HD-1/4-20 X 5/8 W/.076 DIA BORE
217	0088711	NUT 1/4-20 UNC-2B,GRADE 5 STL,ZINC PLT
218	0071654	PIN SPRING 3/16 DIA X 1 IN. LG SLTD CD P
219	0078503	BOLT EYE W/SHOULDER 3/4-10 THD 2 IN. LG
299	0211790	HARDWARE KIT-MOD 8125

Parts List for Model 8125
4.6-Meter Parabolic Reflector Assembly
(Part Number 211752)

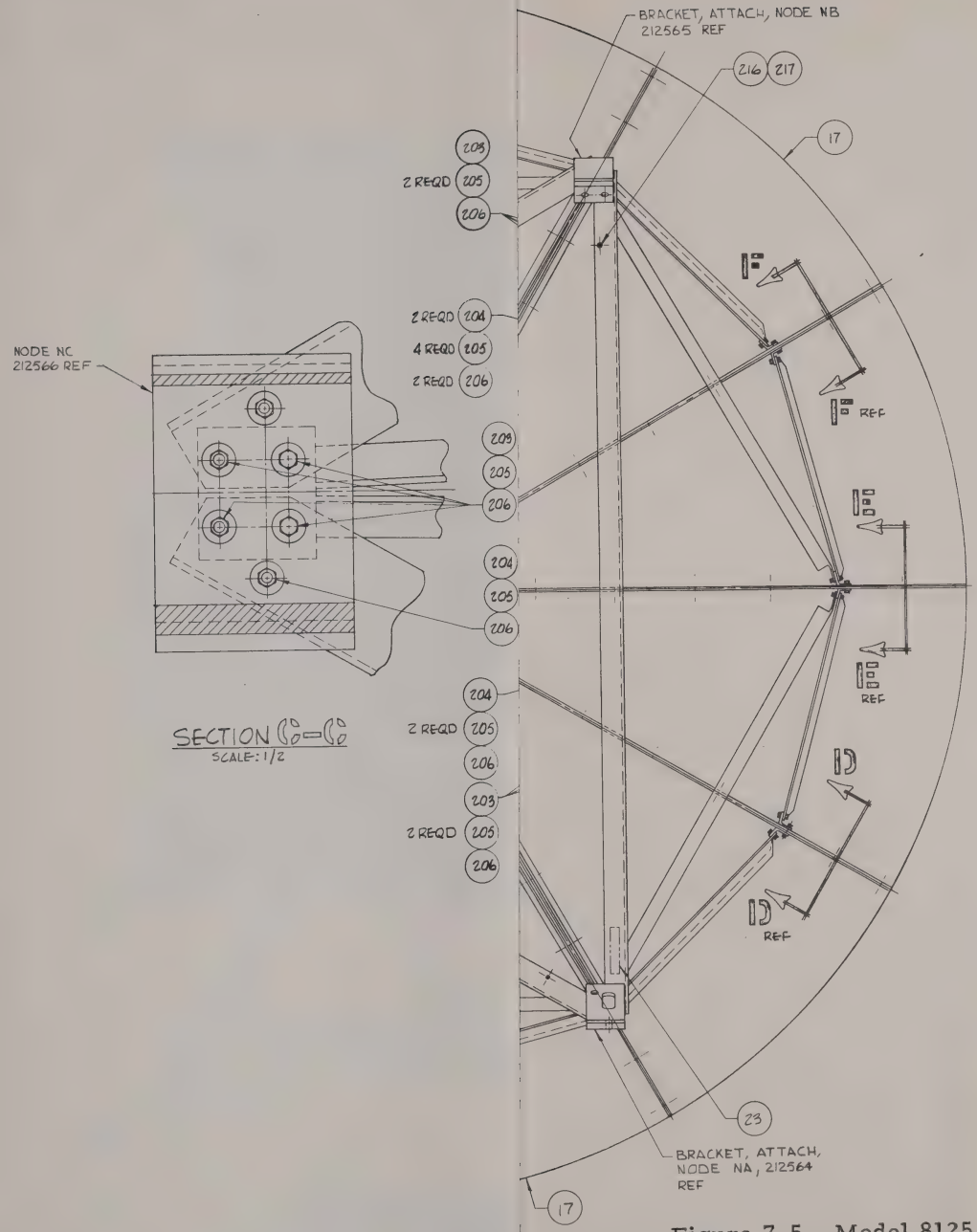


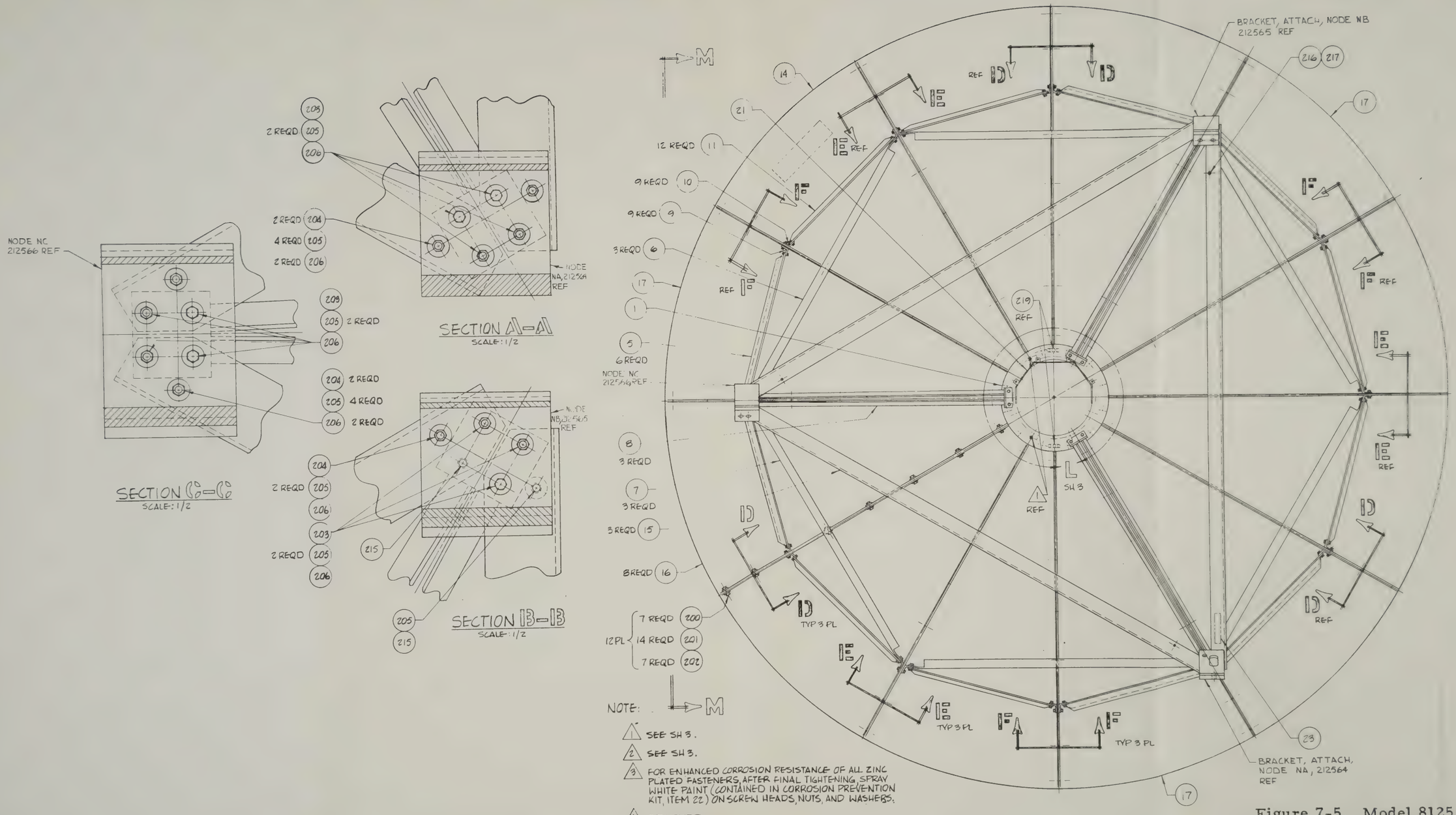
Figure 7-5. Model 8125
4.6-Meter Parabolic Reflector
Assembly
(Sheet 1 of 3)

211752C-211759C

ASSEMBLY W211752 REFLECTOR ASSY,4.6 M ANTENNA-MOD 8125

ITEM	COMPONENT	DESCRIPTION
1	0211737	MTG RING-4.6 M ANT
2	C211860	MBR NO. D7,BACK STRUCT-4.6 M ANT
3	0211861	MBR NO. A1,BACK STRUCT-4.6 M ANT
4	C211862	MBR NO. B1,BACK STRUCT-4.6 M ANT
5	0211863	MBR NO. C3,BACK STRUCT-4.6 M ANT
6	C211865	MBR NO. F4,BACK STRUCT-4.6 M ANT
7	C211866	MBR NO. E4,BACK STRUCT-4.6 M ANT
8	C211867	MBR NO. G5,BACK STRUCT-4.6 M ANT
9	C211868	MBR NO. I1,BACK STRUCT-4.6 M ANT
10	C211869	MBR NO. H1,BACK STRUCT-4.6 M ANT
11	0211870	MBR NO. J2,BACK STRUCT-4.6 M ANT
14	0213163	PANEL,DECAL-4.6 M REFL
15	C211874	MBR NO. K6,BACK STRUCT-4.6 M ANT
16	0211875	PANEL,4.6 M REFL-MOD 8125
17	C211878	SPAR PANEL,4.6 M REFL-MOD 8125
21	0212625	SHIELD,LNA-4.6 M ANT
22	0163476	CORROSION PREVENTION KIT-MOD 8126&8127
23	C211634	SERIAL NO. PLATE INSTALLATION PROCEDURE
200	CC88513	SCREW 5/16-18 X 1.0 CAP,HEX HD,ZINC PLT
201	0088519	WASHER- 5/16- .344 .688 .065 ZN PLT STL
202	CC88517	NUT 5/16-18 UNC-2B GRADE 5 STL ZINC PLT
203	C088516	SCREW 1/2-13 X 1 3/4 CAP HEX HD ZINC PLT
204	C088515	SCREW 1/2-13 X 1 1/2 CAP,HEX HD,ZINC PLT
205	CC88521	WASHER- 1/2- .531 1.062 .095 ZN PLT STL
206	0088518	NUT 1/2-13 UNC-2B GRADE 5 STL ZINC PLT
207	C088514	SCREW 3/8-16 X 1.0 CAP,HEX HD,ZINC PLT
208	CC8852C	WASHER- 3/8- .406 .812 .065 ZN PLT STL
209	C021029	BUTTON,NYLON,CHASSIS SLIDE,ACESSORY
210	CC8550S	BEARING CAM FOLLOWER 3/4 OD 3/8-24 STUD
211	0088541	SCREW 10-24 X 3/8 PAN HD, ZINC PLT STL
212	C088535	WASHER-NO.10- .219 .500 .049 ZINC PLT
213	CC88165	WASHER NO. 10 LOCK, SPLIT, ZN PLT STL
214	CC88166	SCREW 5/16-18 X 1 1/4 CAP,HEX HD,ZN PLT
215	C088525	SCREW 1/2-13 X 1.0 CAP,HEX HD,ZINC PLT
216	C213106	SCR,PAN HD-1/4-20 X 5/8 W/.076 DIA BORE
217	C088711	NUT 1/4-20 UNC-2B,GRADE 5 STL,ZINC PLT
218	0071654	PIN SPRING 3/16 DIA X 1 IN. LG SLTD CD P
219	CC78503	BOLT EYE W/SHOULDER 3/4-10 THD 2 IN. LG
299	0211790	HARDWARE KIT-MOD 8125

Parts List for Model 8125
4.6-Meter Parabolic Reflector Assembly
(Part Number 211752)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212566 REF
SECTION C-C
SCALE: 1/2
SECTION A-A
SCALE: 1/2
SECTION B-B
SCALE: 1/2
NODE NA, 212564 REF
NODE NB, 212565 REF
BRACKET, ATTACH, NODE NB 212565 REF
BRACKET, ATTACH, NODE NA, 212564 REF
NODE NC 212566 REF
TYP 3 PL
SH 3
REF
NOTE:
1. SEE SH 3.
2. SEE SH 3.
3. FOR ENHANCED CORROSION RESISTANCE OF ALL ZINC PLATED FASTENERS, AFTER FINAL TIGHTENING, SPRAY WHITE PAINT (CONTAINED IN CORROSION PREVENTION KIT, ITEM 22) ON SCREW HEADS, NUTS, AND WASHERS.
4. REMOVED

211752C-211759C

Figure 7-5. Model 8125 4.6-Meter Parabolic Reflector Assembly (Sheet 1 of 3)

25A091G

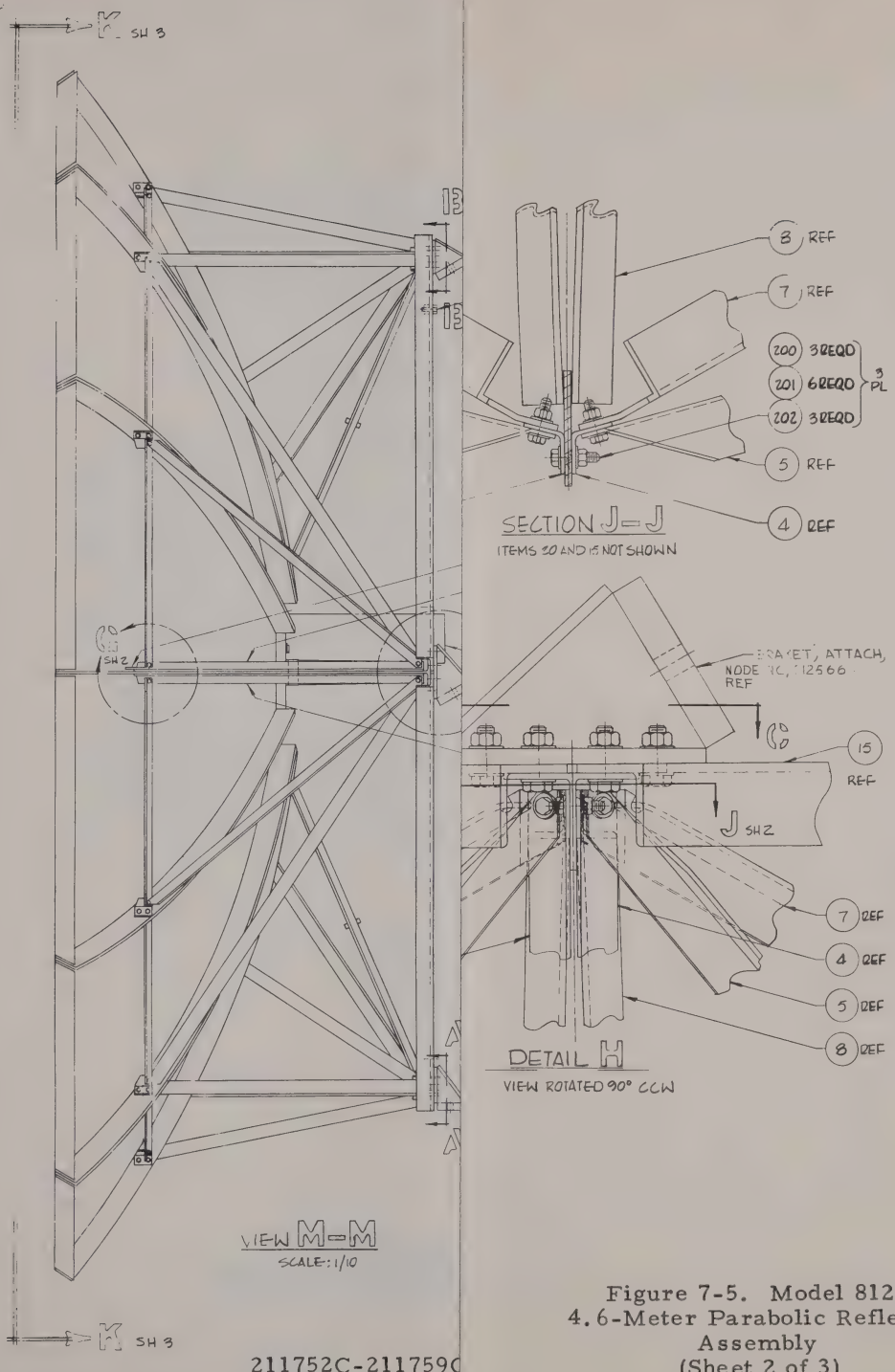
ASSEMBLY W211752 REFLECTOR ASSY,4.6 M ANTENNA-MOD 8125

ITEM	COMPONENT	DESCRIPTION
1	0211737	MTG RING-4.6 M ANT
2	0211860	MBR NO. D7,BACK STRUCT-4.6 M ANT
3	0211861	MBR NO. A1,BACK STRUCT-4.6 M ANT
4	0211862	MBR NO. B1,BACK STRUCT-4.6 M ANT
5	0211863	MBR NO. C3,BACK STRUCT-4.6 M ANT
6	0211865	MBR NO. F4,BACK STRUCT-4.6 M ANT
7	0211866	MBR NO. E4,BACK STRUCT-4.6 M ANT
8	0211867	MBR NO. G5,BACK STRUCT-4.6 M ANT
9	0211868	MBR NO. I1,BACK STRUCT-4.6 M ANT
10	0211869	MBR NO. H1,BACK STRUCT-4.6 M ANT
11	0211870	MBR NO. J2,BACK STRUCT-4.6 M ANT
14	0213163	PANEL,DECAL-4.6 M REFL
15	0211874	MBR NO. K6,BACK STRUCT-4.6 M ANT
16	0211875	PANEL,4.6 M REFL-MOD 8125
17	0211878	SPAR PANEL,4.6 M REFL-MOD 8125
21	0212625	SHIELD,LNA-4.6 M ANT
22	0163476	CORROSION PREVENTION KIT-MOD 8126&8127
23	0211634	SERIAL NO. PLATE INSTALLATION PROCEDURE
200	0088513	SCREW 5/16-18 X 1.0 CAP,HEX HD,ZINC PLT
201	0088519	WASHER- 5/16- .344 .688 .065 ZN PLT STL
202	0088517	NUT 5/16-18 UNC-2B GRADE 5 STL ZINC PLT
203	0088516	SCREW 1/2-13 X 1 3/4 CAP HEX HD ZINC PLT
204	0088515	SCREW 1/2-13 X 1 1/2 CAP,HEX HD,ZINC PLT
205	0088521	WASHER- 1/2- .531 1.062 .095 ZN PLT STL
206	0088518	NUT 1/2-13 UNC-2B GRADE 5 STL ZINC PLT
207	0088514	SCREW 3/8-16 X 1.0 CAP,HEX HD,ZINC PLT
208	0088520	WASHER- 3/8- .406 .812 .065 ZN PLT STL
209	0021029	BUTTON,NYLON,CHASSIS SLIDE,ACESSORY
210	0085509	BEARING CAM FOLLOWER 3/4 OD 3/8-24 STUD
211	0088541	SCREW 10-24 X 3/8 PAN HD, ZINC PLT STL
212	0088535	WASHER-NO.10- .219 .500 .049 ZINC PLT
213	0088165	WASHER NO. 10 LOCK, SPLIT, ZN PLT STL
214	0088166	SCREW 5/16-18 X 1 1/4 CAP,HEX HD,ZN PLT
215	0088525	SCREW 1/2-13 X 1.0 CAP,HEX HD,ZINC PLT
216	0213106	SCR,PAN HD-1/4-20 X 5/8 W/.076 DIA BORE
217	0088711	NUT 1/4-20 UNC-2B,GRADE 5 STL,ZINC PLT
218	0071654	PIN SPRING 3/16 DIA X 1 IN. LG SLTD CD P
219	0078503	BOLT EYE W/SHOULDER 3/4-10 THD 2 IN. LG
299	0211790	HARDWARE KIT-MOD 8125

NOTE

This parts list is a duplicate of the list on page 7-12.

Parts List for Model 8125
4.6-Meter Parabolic Reflector Assembly
(Part Number 211752)



211752C-211759C

Figure 7-5. Model 8125 4.6-Meter Parabolic Reflector Assembly (Sheet 2 of 3)

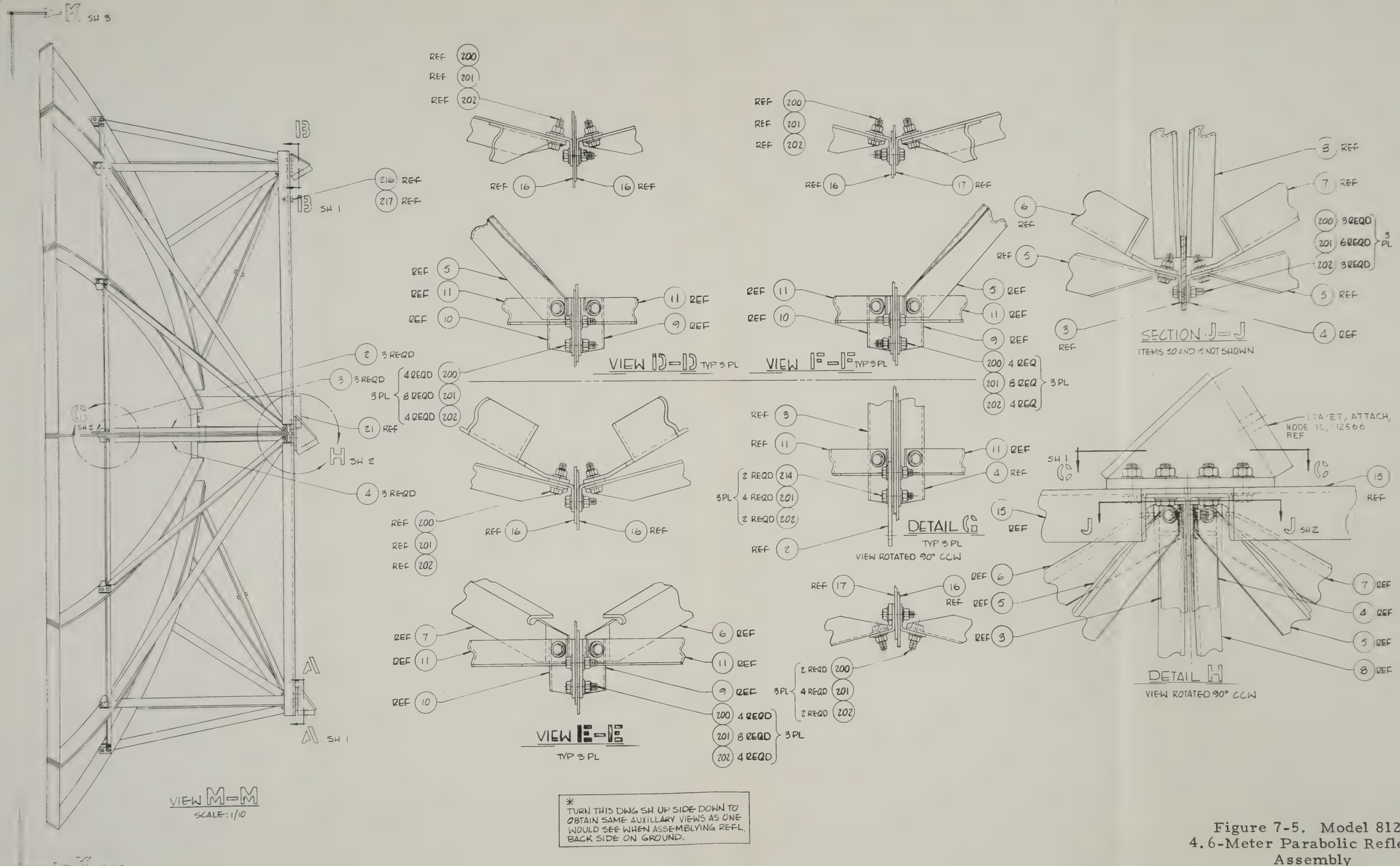
ASSEMBLY W211752 REFLECTOR ASSY,4.6 M ANTENNA-MCD 8125

ITEM	COMPONENT	DESCRIPTION
1	0211737	MTG RING-4.6 M ANT
2	C211860	MBR NO. D7,BACK STRUCT-4.6 M ANT
3	0211861	MBR NO. A1,BACK STRUCT-4.6 M ANT
4	C211862	MBR NO. B1,BACK STRUCT-4.6 M ANT
5	0211863	MBR NO. C3,BACK STRUCT-4.6 M ANT
6	0211865	MBR NO. F4,BACK STRUCT-4.6 M ANT
7	C211866	MBR NO. E4,BACK STRUCT-4.6 M ANT
8	C211867	MBR NO. G5,BACK STRUCT-4.6 M ANT
9	C211868	MBR NO. I1,BACK STRUCT-4.6 M ANT
10	C211869	MBR NO. H1,BACK STRUCT-4.6 M ANT
11	C211870	MBR NO. J2,BACK STRUCT-4.6 M ANT
14	0213163	PANEL,DECAL-4.6 M REFL
15	C211874	MBR NO. K6,BACK STRUCT-4.6 M ANT
16	0211875	PANEL,4.6 M REFL-MCD 8125
17	0211878	SPAR PANEL,4.6 M REFL-MCD 8125
21	0212625	SHIELD,LNA-4.6 M ANT
22	0163476	CORROSION PREVENTION KIT-MCD 8126&8127
23	C211634	SERIAL NO. PLATE INSTALLATION PROCEDURE
200	CC88513	SCREW 5/16-18 X 1.0 CAP,HEX HD,ZINC PLT
201	0088519	WASHER- 5/16- .344 .688 .065 ZN PLT STL
202	CC88517	NUT 5/16-18 UNC-2B GRADE 5 STL ZINC PLT
203	C0088516	SCREW 1/2-13 X 1 3/4 CAP HEX HD ZINC PLT
204	C0088515	SCREW 1/2-13 X 1 1/2 CAP,HEX HD,ZINC PLT
205	CC88521	WASHER- 1/2- .531 1.062 .095 ZN PLT STL
206	C0088518	NUT 1/2-13 UNC-2B GRADE 5 STL ZINC PLT
207	C0088514	SCREW 3/8-16 X 1.0 CAP,HEX HD,ZINC PLT
208	CC8852C	WASHER- 3/8- .406 .812 .065 ZN PLT STL
209	CC21029	BUTTON,NYLON,CHASSIS SLIDE,ACESSORY
210	0C8550S	BEARING CAM FOLLOWER 3/4 OD 3/8-24 STUD
211	0C88541	SCREW 10-24 X 3/8 PAN HD, ZINC PLT STL
212	C0088535	WASHER-NO.10- .219 .500 .049 ZINC PLT
213	CC88165	WASHER NO. 10 LOCK, SPLIT, ZN PLT STL
214	C0088166	SCREW 5/16-18 X 1 1/4 CAP,HEX HD,ZN PLT
215	C0088525	SCREW 1/2-13 X 1.0 CAP,HEX HD,ZINC PLT
216	C213106	SCR,PAN HD-1/4-20 X 5/8 W/.076 DIA BORE
217	C0088711	NUT 1/4-20 UNC-2B,GRADE 5 STL,ZINC PLT
218	0071654	PIN SPRING 3/16 DIA X 1 IN. LG SLTD CD P
219	CC78503	BOLT EYE W/SHOULDER 3/4-10 THD 2 IN. LG
299	0211790	HARDWARE KIT-MCD 8125

NOTE

This parts list is a duplicate of the list on page 7-12.

Parts List for Model 8125
4.6-Meter Parabolic Reflector Assembly
(Part Number 211752)


VIEW M-M
SCALE: 1/10
VIEW J-J TYP 3 PL
VIEW K-K TYP 3 PL
SECTION J-J
ITEMS 20 AND 15 NOT SHOWN
VIEW L-L
TYP 3 PL
DETAIL G
TYP 3 PL
VIEW ROTATED 90° CCW
DETAIL H
VIEW ROTATED 90° CCW
* TURN THIS DWG SH UP SIDE DOWN TO OBTAIN SAME AUXILLARY VIEWS AS ONE WOULD SEE WHEN ASSEMBLYING REFL, BACK SIDE ON GROUND.

211752C-211759C

Figure 7-5. Model 8125
4.6-Meter Parabolic Reflector
Assembly
(Sheet 2 of 3)

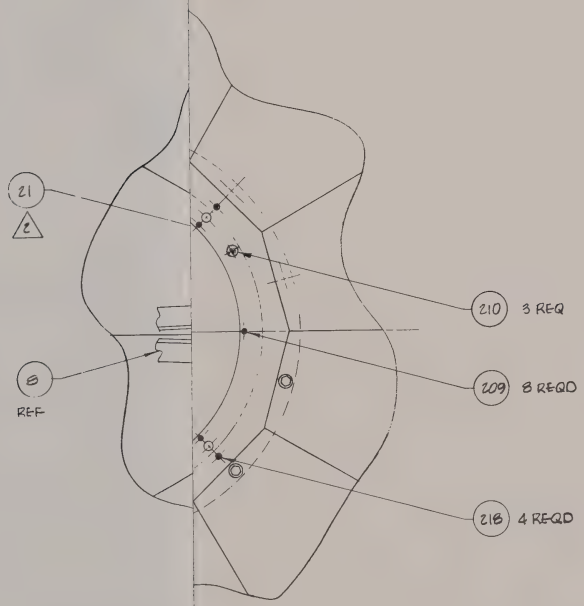
ASSEMBLY W211752 REFLECTOR ASSY,4.6 M ANTENNA-MOD 8125

ITEM	COMPONENT	DESCRIPTION
1	0211737	MTG RING-4.6 M ANT
2	0211860	MBR NO. D7,BACK STRUCT-4.6 M ANT
3	0211861	MBR NO. A1,BACK STRUCT-4.6 M ANT
4	0211862	MBR NO. B1,BACK STRUCT-4.6 M ANT
5	0211863	MBR NO. C3,BACK STRUCT-4.6 M ANT
6	0211865	MBR NO. E4,BACK STRUCT-4.6 M ANT
7	0211866	MBR NO. E4,BACK STRUCT-4.6 M ANT
8	0211867	MBR NO. G5,BACK STRUCT-4.6 M ANT
9	0211868	MBR NO. I1,BACK STRUCT-4.6 M ANT
10	0211869	MBR NO. H1,BACK STRUCT-4.6 M ANT
11	0211870	MBR NO. J2,BACK STRUCT-4.6 M ANT
14	0213163	PANEL,DECAL-4.6 M REFL
15	0211874	MBR NO. K6,BACK STRUCT-4.6 M ANT
16	0211875	PANEL,4.6 M REFL-MOD 8125
17	0211878	SPAR PANEL,4.6 M REFL-MOD 8125
21	0212625	SHIELD,LNA-4.6 M ANT
22	0163476	CORROSION PREVENTION KIT-MOD 8126&8127
23	0211634	SERIAL NO. PLATE INSTALLATION PROCEDURE
200	0088513	SCREW 5/16-18 X 1.0 CAP,HEX HD,ZINC PLT
201	0088519	WASHER- 5/16- .344 .688 .065 ZN PLT STL
202	0088517	NUT 5/16-18 UNC-2B GRADE 5 STL ZINC PLT
203	0088516	SCREW 1/2-13 X 1 3/4 CAP HEX HD ZINC PLT
204	0088515	SCREW 1/2-13 X 1 1/2 CAP,HEX HD,ZINC PLT
205	0088521	WASHER- 1/2- .531 1.062 .095 ZN PLT STL
206	0088518	NUT 1/2-13 UNC-2B GRADE 5 STL ZINC PLT
207	0088514	SCREW 3/8-16 X 1.0 CAP,HEX HD,ZINC PLT
208	0088520	WASHER- 3/8- .406 .812 .065 ZN PLT STL
209	0021029	BUTTON,NYLON,CHASSIS SLIDE,ACESSORY
210	0085509	BEARING CAM FOLLOWER 3/4 OD 3/8-24 STUD
211	0088541	SCREW 10-24 X 3/8 PAN HD, ZINC PLT STL
212	0088535	WASHER-NO.10- .219 .500 .049 ZINC PLT
213	0088165	WASHER NO. 10 LOCK, SPLIT, ZN PLT STL
214	0088166	SCREW 5/16-18 X 1 1/4 CAP,HEX HD,ZN PLT
215	0088525	SCREW 1/2-13 X 1.0 CAP,HEX HD,ZINC PLT
216	0213106	SCR,PAN HD-1/4-20 X 5/8 W/.076 DIA BORE
217	0088711	NUT 1/4-20 UNC-2B,GRADE 5 STL,ZINC PLT
218	0071654	PIN SPRING 3/16 DIA X 1 IN. LG SLTD CD P
219	0078503	BOLT EYE W/SHOULDER 3/4-10 THD 2 IN. LG
299	0211790	HARDWARE KIT-MOD 8125

NOTE

This parts list is a duplicate of the list on page 7-12.

Parts List for Model 8125
4.6-Meter Parabolic Reflector Assembly
(Part Number 211752)



NOTE:

1. 3/8-16 UNC-2B T
2. INSTALL ITEM 21 INSTALLATION HA

Figure 7-5. Model 8125
4.6-Meter Parabolic Reflector
Assembly
(Sheet 3 of 3)

212752C-212759C

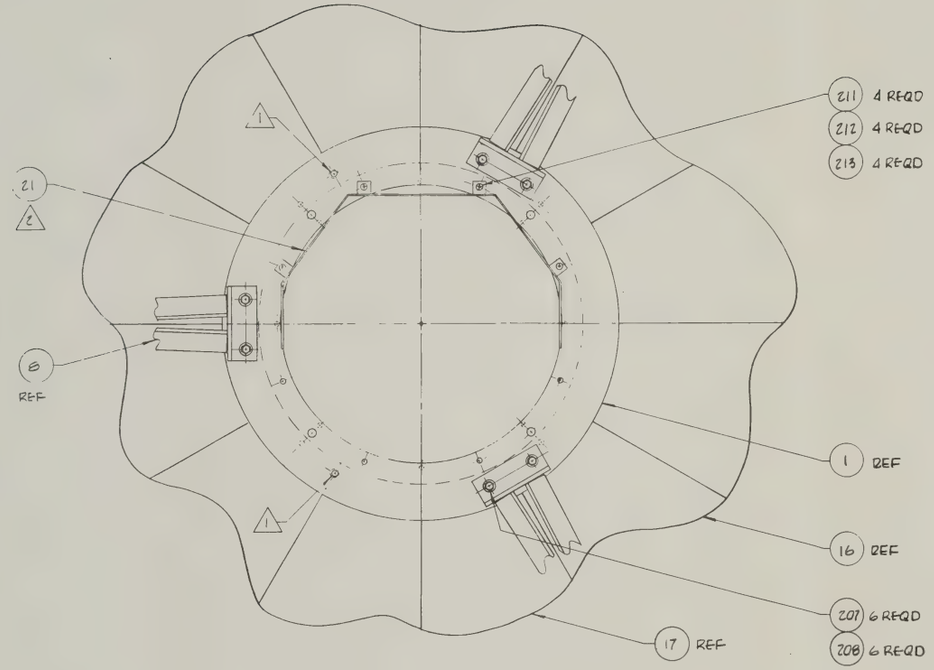
ASSEMBLY W211752 REFLECTOR ASSY,4.6 M ANTENNA-MOD 8125

ITEM	COMPONENT	DESCRIPTION
1	C211737	MTG RING-4.6 M ANT
2	C211860	MBR NO. D7,BACK STRUCT-4.6 M ANT
3	C211861	MBR NO. A1,BACK STRUCT-4.6 M ANT
4	C211862	MBR NO. B1,BACK STRUCT-4.6 M ANT
5	C211863	MBR NO. C3,BACK STRUCT-4.6 M ANT
6	C211865	MBR NO. F4,BACK STRUCT-4.6 M ANT
7	C211866	MBR NO. E4,BACK STRUCT-4.6 M ANT
8	C211867	MBR NO. G5,BACK STRUCT-4.6 M ANT
9	C211868	MBR NO. I1,BACK STRUCT-4.6 M ANT
10	C211869	MBR NO. H1,BACK STRUCT-4.6 M ANT
11	C211870	MBR NO. J2,BACK STRUCT-4.6 M ANT
14	C213163	PANEL,DECAL-4.6 M REFL
15	C211874	MBR NO. K6,BACK STRUCT-4.6 M ANT
16	C211875	PANEL,4.6 M REFL-MOD 8125
17	C211878	SPAR PANEL,4.6 M REFL-MOD 8125
21	C212625	SHIELD,LNA-4.6 M ANT
22	C163476	CORROSION PREVENTION KIT-MOD 8126&8127
23	C211634	SERIAL NO. PLATE INSTALLATION PROCEDURE
200	C088513	SCREW 5/16-18 X 1.0 CAP,HEX HD,ZINC PLT
201	C088519	WASHER- 5/16- .344 .688 .065 ZN PLT STL
202	C088517	NUT 5/16-18 UNC-2B GRADE 5 STL ZINC PLT
203	C088516	SCREW 1/2-13 X 1 3/4 CAP HEX HD ZINC PLT
204	C088515	SCREW 1/2-13 X 1 1/2 CAP,HEX HD,ZINC PLT
205	C088521	WASHER- 1/2- .531 1.062 .095 ZN PLT STL
206	C088518	NUT 1/2-13 UNC-2B GRADE 5 STL ZINC PLT
207	C088514	SCREW 3/8-16 X 1.0 CAP,HEX HD,ZINC PLT
208	C08852C	WASHER- 3/8- .406 .812 .065 ZN PLT STL
209	C021029	BUTTON,NYLON,CHASSIS SLIDE,ACESSORY
210	C085509	BEARING CAM FOLLOWER 3/4 OD 3/8-24 STUD
211	C088541	SCREW 10-24 X 3/8 PAN HD, ZINC PLT STL
212	C088535	WASHER-NO.10- .219 .500 .049 ZINC PLT
213	C088165	WASHER NO. 10 LOCK, SPLIT, ZN PLT STL
214	C088166	SCREW 5/16-18 X 1 1/4 CAP,HEX HD,ZN PLT
215	C088525	SCREW 1/2-13 X 1.0 CAP,HEX HD,ZINC PLT
216	C213106	SCR,PAN HD-1/4-20 X 5/8 W/.076 DIA BORE
217	C088711	NUT 1/4-20 UNC-2B,GRADE 5 STL,ZINC PLT
218	C071654	PIN SPRING 3/16 DIA X 1 IN. LG SLTD CD P
219	C078503	BOLT EYE W/SHOULDER 3/4-10 THD 2 IN. LG
299	C211790	HARDWARE KIT-MOD 8125

NOTE

This parts list is a duplicate of the list on page 7-12.

Parts List for Model 8125
4.6-Meter Parabolic Reflector Assembly
(Part Number 211752)



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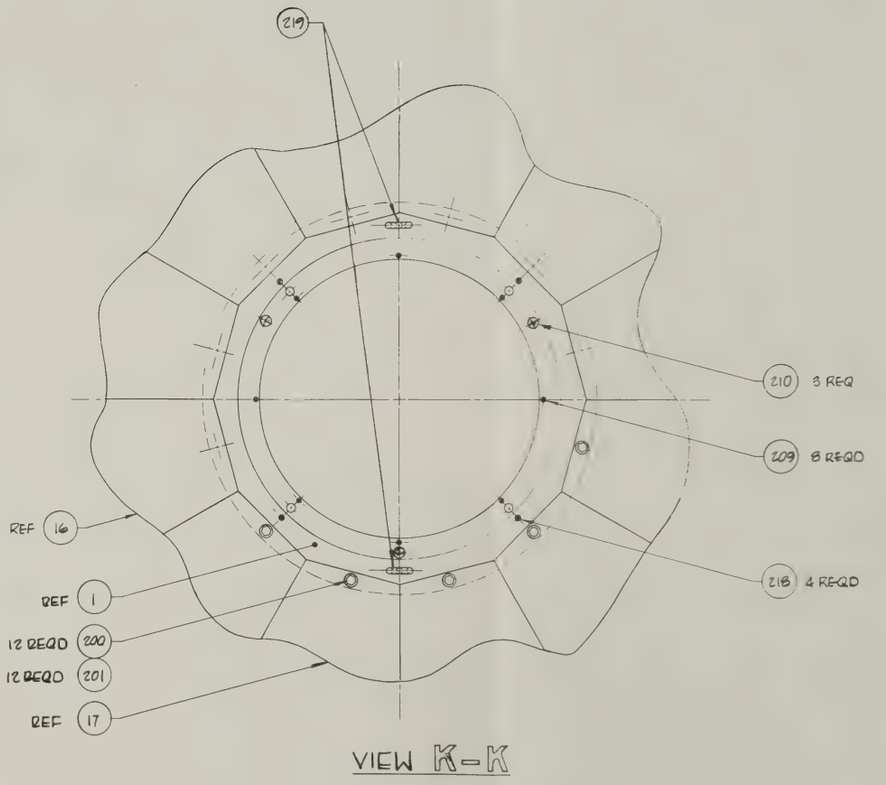


VIEW K-K

NOTE:

1. 3/8-16 UNC-2B TAPPED HOLE FOR ERECTION KIT.
2. INSTALL ITEM 21, LNA SHIELD, AFTER FEED INSTALLATION HAS BEEN COMPLETE.

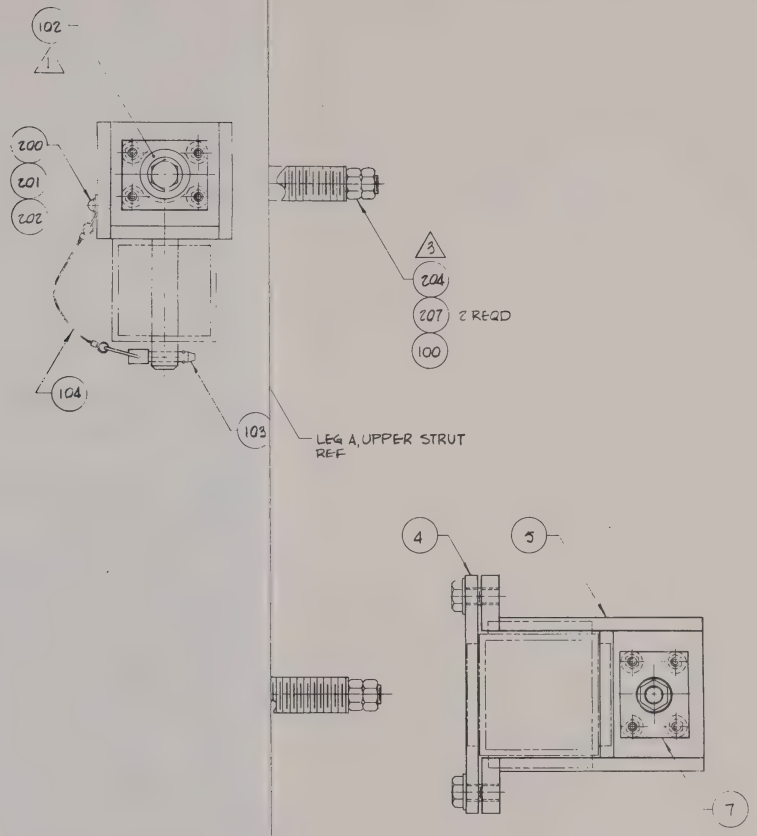
212752C-212759C

Figure 7-5. Model 8125
4.6-Meter Parabolic Reflector
Assembly
(Sheet 3 of 3)

ASSEMBLY W212392 MOUNT ASSY,4.6 M ANT-MCD 8026A

ITEM	COMPONENT	DESCRIPTION
1	0211804	LEG A ASSY,81.5 RED-4.6 METER MOUNT
2	0212571	ADJ MECH ASSY,4.6 M ANT-MCD 8026
3	0211805	LEG A ASSY,71.5 BLUE-4.6 METER MOUNT
4	0211995	EYEBOLT,1-8 THD,2.0 LG
6	0211988	KINGPOST CLEVIS,UPPER-4.6 M ANT
7	0211987	KINGPOST CLEVIS,LOWER-4.6 M ANT
9	0211794	GROUND CABLE ASSY-4.6 M ANTENNA
10	0212058	U-BOLT,1 1/8 INCH
12	0212057	U-BOLT,3/4 INCH
13	0211806	LEG A ASSY,61.5 GREEN-4.6 METER MOUNT
17	0211803	PIN,CLEVIS-4.6 M MOUNT
18	0211634	SERIAL NO. PLATE INSTALLATION PROCEDURE
19	0212565	BRACKET,ATTACH,MODE NB-MCD 8125
20	0212566	BRACKET,ATTACH,MODE NC-MCD 8125
21	0212564	BRACKET,ATTACH,MODE NA-MCD 8125
200	0088528	SCREW 1/2-13 X 5 IN. CAP,HEX HD,ZINC PLT
201	0088521	WASHER- 1/2- .531 1.062 .095 ZN PLT STL
202	0088518	NUT 1/2-13 UNC-2B GRADE 5 STL ZINC PLT
203	0088515	SCREW 1/2-13 X 1 1/2 CAP,HEX HD,ZINC PLT
204	0088525	SCREW 1/2-13 X 1.0 CAP,HEX HD,ZINC PLT
205	0088527	SCREW 1/2-13 X 2 IN. CAP,HEX HD,ZINC PLT
206	0088538	WASHER-1 IN.-1.062 2.000 .134 ZINC PLT
207	0213106	SCR,PAN HD-1/4-20 X 5/8 W/.076 DIA BORE
208	0088533	NUT 1-8 UNC-2B,GRADE 5 STL,ZINC PLT
210	0088539	WASHER-1 1/8-1.250 2.750 .165 ZINC PLT
211	0088534	NUT 1 1/8-7 UNC-2B,GRADE 5 STL,ZINC PLT
212	0088537	WASHER- 3/4- .812 1.469 .134 ZINC PLT
213	0088532	NUT 3/4-10 UNC-2B,GRADE 5 STL,ZINC PLT
214	0088529	SCREW 1-8 X 2 1/2 CAP,HEX HD,ZINC PLT
215	0076262	PIN COTTER 1/8 DIA X 1 1/2 LG ZN PL STL
299	0211791	HARDWARE KIT-MCD 8026

Parts List for Model 8026
Mount Assembly
(Part Number 212392)



NOTE:

1. PRESS BEARING INTO H
REQUIRED HARDWARE.
HOLE OF ITEM 3, THEN
ITEM 3 INTO BEARING.

2. APPLY ITEM 101 TO ITEM

3. APPLY 1 DROP OF ITEM
ITEM 204 AND ONE
ASSEMBLE SECOND IT

Figure 7-7. Strut Adjustor Assembly

ASSEMBLY W212392 MOUNT ASSY,4.6 M ANT-MCD 8026A

ITEM	COMPONENT	DESCRIPTION
1	0211804	LEG A ASSY,81.5 RED-4.6 METER MOUNT
2	0212571	ADJ MECH ASSY,4.6 M ANT-MCD 8026
3	0211805	LEG A ASSY,71.5 BLUE-4.6 METER MOUNT
4	0211995	EYEBOLT,1-8 THD,2.0 LG
6	0211988	KINGPOST CLEVIS,UPPER-4.6 M ANT
7	0211987	KINGPOST CLEVIS,LOWER-4.6 M ANT
9	0211794	GROUND CABLE ASSY-4.6 M ANTENNA
10	0212058	U-BOLT,1 1/8 INCH
12	0212057	U-BOLT,3/4 INCH
13	0211806	LEG A ASSY,61.5 GREEN-4.6 METER MOUNT
17	0211803	PIN,CLEVIS-4.6 M MOUNT
18	0211634	SERIAL NO. PLATE INSTALLATION PROCEDURE
19	0212565	BRACKET,ATTACH,MODE NB-MCD 8125
20	0212566	BRACKET,ATTACH,MODE NC-MCD 8125
21	0212564	BRACKET,ATTACH,MODE NA-MCD 8125
200	0088528	SCREW 1/2-13 X 5 IN. CAP,HEX HD,ZINC PLT
201	0088521	WASHER- 1/2- .531 1.062 .095 ZN PLT STL
202	0088518	NUT 1/2-13 UNC-2B GRADE 5 STL ZINC PLT
203	0088515	SCREW 1/2-13 X 1 1/2 CAP,HEX HD,ZINC PLT
204	0088525	SCREW 1/2-13 X 1.0 CAP,HEX HD,ZINC PLT
205	0088527	SCREW 1/2-13 X 2 IN. CAP,HEX HD,ZINC PLT
206	0088538	WASHER-1 IN.-1.062 2.000 .134 ZINC PLT
207	0213106	SCR,PAN HD-1/4-20 X 5/8 W/.076 DIA BORE
208	0088533	NUT 1-8 UNC-2B,GRADE 5 STL,ZINC PLT
210	0088539	WASHER-1 1/8-1.250 2.750 .165 ZINC PLT
211	0088534	NUT 1 1/8-7 UNC-2B,GRADE 5 STL,ZINC PLT
212	0088537	WASHER- 3/4- .812 1.469 .134 ZINC PLT
213	0088532	NUT 3/4-10 UNC-2B,GRADE 5 STL,ZINC PLT
214	0088529	SCREW 1-8 X 2 1/2 CAP,HEX HD,ZINC PLT
215	0076262	PIN COTTER 1/8 DIA X 1 1/2 LG ZN PL STL
299	0211791	HARDWARE KIT-MCD 8026

Parts List for Model 8026
Mount Assembly
(Part Number 212392)

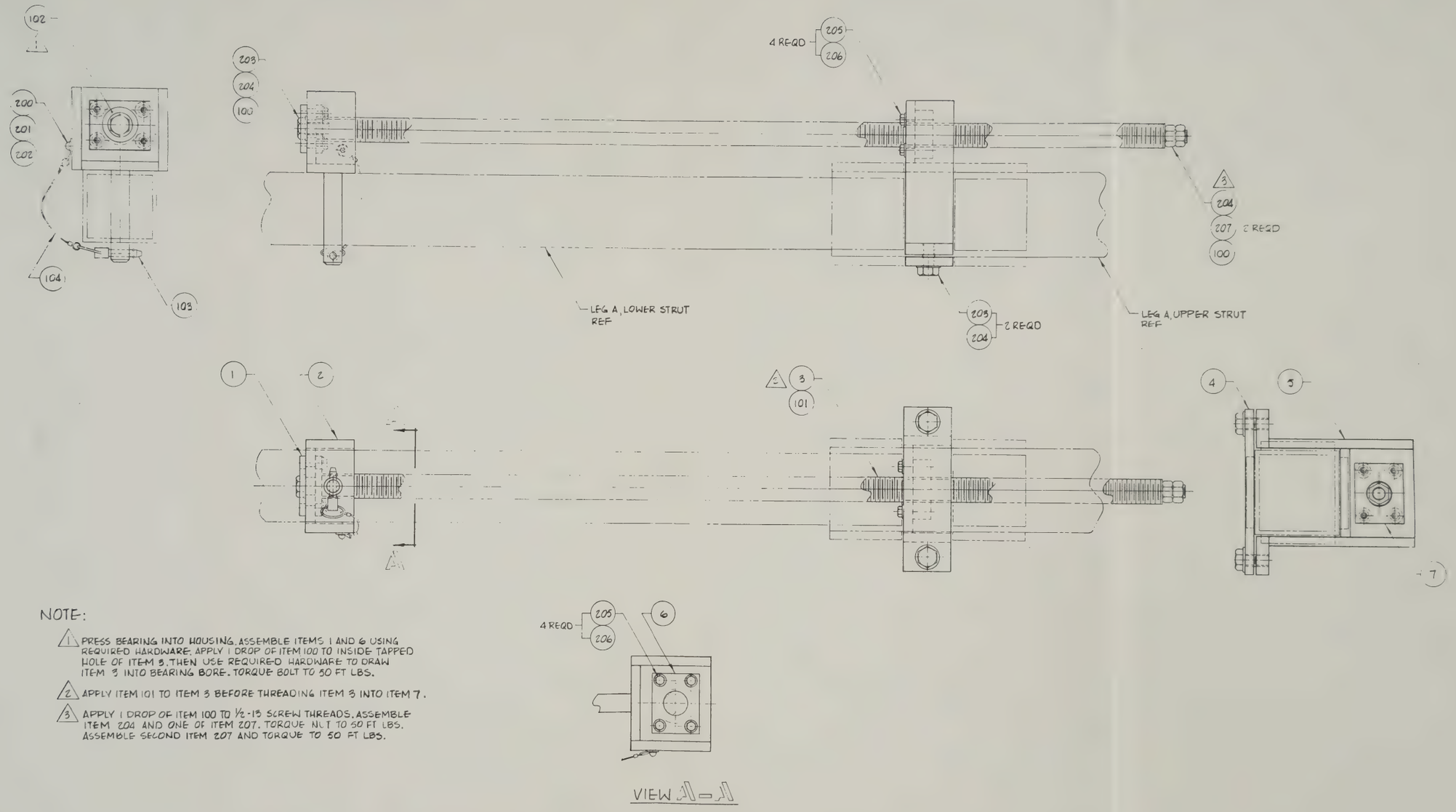

102
200
201
202
104
103
203
204
100
4 REQD
205
206
LEG A, LOWER STRUT REF
2 REQD
LEG A, UPPER STRUT REF
207
1
2
3
101
4
5
6
7
NOTE:
1 PRESS BEARING INTO HOUSING. ASSEMBLE ITEMS 1 AND 6 USING REQUIRED HARDWARE. APPLY 1 DROP OF ITEM 100 TO INSIDE TAPPED HOLE OF ITEM 3. THEN USE REQUIRED HARDWARE TO DRAW ITEM 3 INTO BEARING BORE. TORQUE BOLT TO 50 FT LBS.
2 APPLY ITEM 101 TO ITEM 3 BEFORE THREADING ITEM 3 INTO ITEM 7.
3 APPLY 1 DROP OF ITEM 100 TO ½-13 SCREW THREADS. ASSEMBLE ITEM 204 AND ONE OF ITEM 207. TORQUE NUT TO 50 FT LBS. ASSEMBLE SECOND ITEM 207 AND TORQUE TO 50 FT LBS.
VIEW A-A

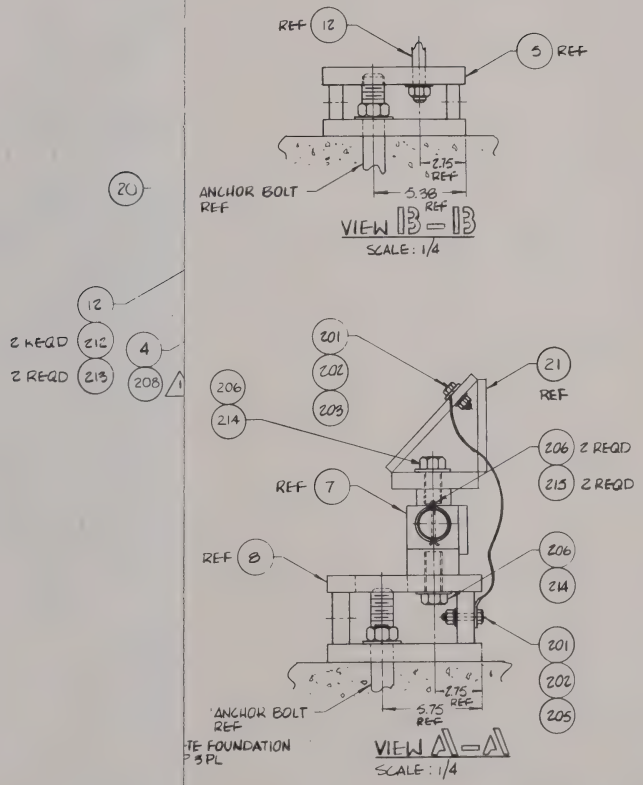
Figure 7-7. Strut Adjustor Assembly

212571B

ASSEMBLY E211771 FEED MTG ASSY,4.6 M ANT-MOD 8227SP

ITEM	COMPONENT	DESCRIPTION
1	0211825	HORN ASSY-MOD 8227
2	0152927	ORTHOMODE XDCR,DUAL PORT-SOURCE CONT DWG
3	0136903	CLAMP,AXIAL RATIO-MODEL 8220
4	0152839	PLATE,COVER-CPR-229 FLANGE
5	0117715	GASKET WAVEGUIDE CPR229 0.125 THK
6	0152811	PLATE,RETAINER-5 METER ANTENNA
7	0211634	SERIAL NO. PLATE INSTALLATION PROCEDURE
100	0035260	ADAPTER 1/8 NPT MALE TO 1/4 OD TUBE
101	0086369	TAPE TEFLON ANTISEIZE .0035 THK 1/2 WIDE
102	0085265	RING O 3.734 ID 4.012 OD .139W SILICONE
200	0072470	SCREW 10-24 X 1 1/4 TRIM HEX HD CAD PLT
201	0072501	SCREW 1/4-20 X 1 1/4 CAP,HEX HD,CAD PLT
202	0072661	SCREW 1/2-13 X 2 3/4 CAP,HEX HD,CAD PLT
203	0072670	SCREW 1/2-13 X 4 IN.-3 IN.THD-HEX HD,CAD
206	0073276	WASHER-NO.10- .219 .500 .049 CAD PL STL
207	0073278	WASHER-NO1/4- .281 .625 .065 CAD PL STL
208	0073286	WASHER- 1/2- .531 1.062 .095 CAD PL STL
209	0073273	WASHER NO. 10 LOCK, SPLIT, CAD PLT STL
213	0071504	NUT 10-24 UNC-2B,GRADE 5 STL,CAD PL
214	0071508	NUT 1/4-20 UNC-2B,GRADE 5 STL,CAD PL
215	0081984	NUT 1/2-13 UNC-2B SELF-LCKNG FLNGD CD PL
299	0211793	HARDWARE KIT-MOD 8227DP

Parts List for Model 8227
Feed Mounting Assembly
(Part Number 211771)



NOTE:

1. SCREW ITEM 208 (
SCREWING ITEM 4
2. LOCATION OF IT
INTERCHANGED CO
FOR CORRECT PO

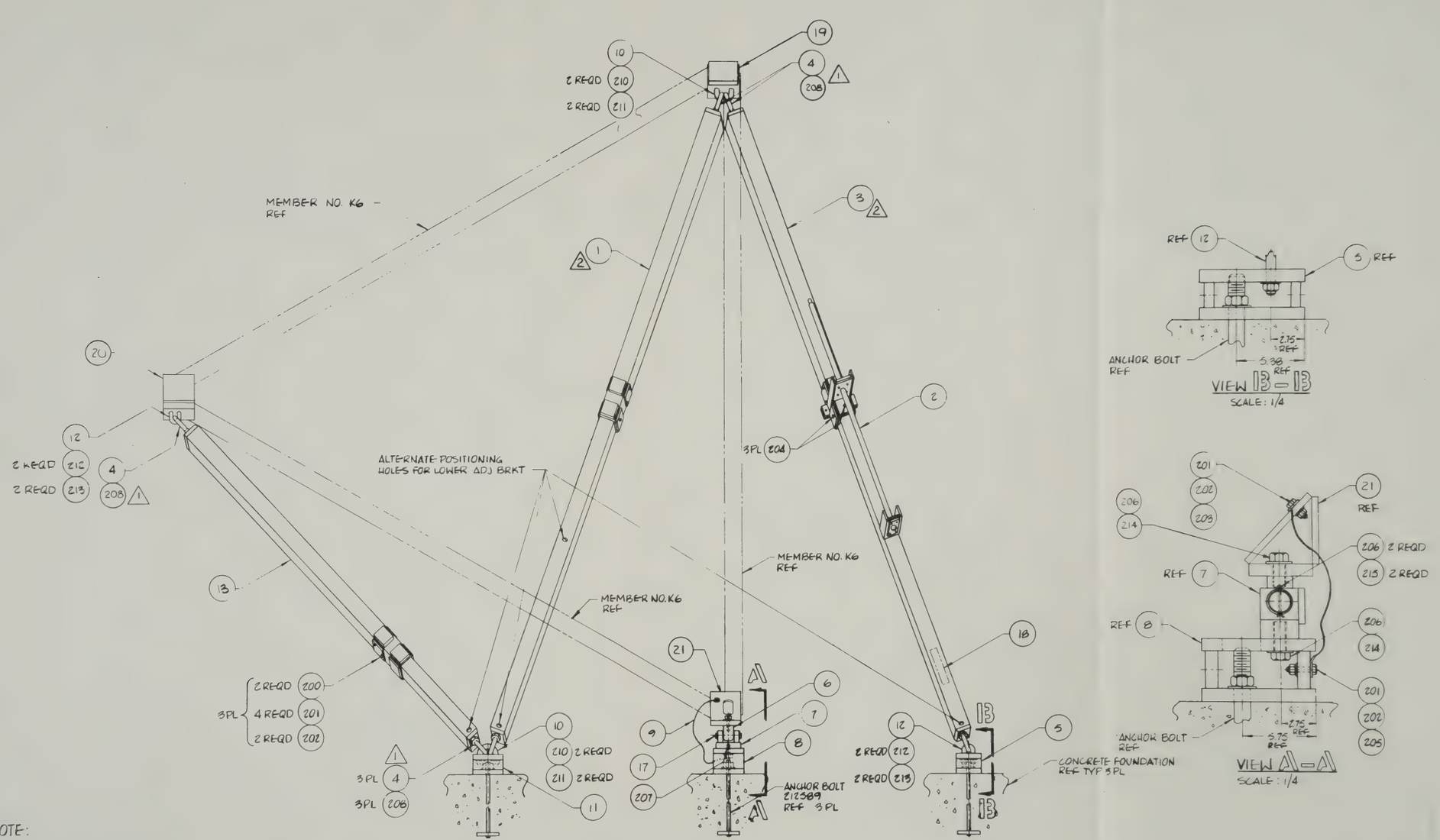
212392-212399

Figure 7-6. Model 8026 Mount Assembly

ASSEMBLY E211771 FEED MTG ASSY,4.6 M ANT-MOD 8227SP

ITEM	COMPONENT	DESCRIPTION
1	0211825	HORN ASSY-MOD 8227
2	0152927	ORTHOMODE XDCR,DUAL PORT-SOURCE CONT DWG
3	0136903	CLAMP,AXIAL RATIO-MODEL 8220
4	0152839	PLATE,COVER-CPR-229 FLANGE
5	0117715	GASKET WAVEGUIDE CPR229 0.125 THK
6	0152811	PLATE,RETAINER-5 METER ANTENNA
7	0211634	SERIAL NO. PLATE INSTALLATION PROCEDURE
100	0085260	ADAPTER 1/8 NPT MALE TO 1/4 OD TUBE
101	0086369	TAPE TEFLON ANTISEIZE .0035 THK 1/2 WIDE
102	0085265	RING O 3.734 ID 4.012 OD .139W SILICONE
200	0072470	SCREW 10-24 X 1 1/4 TRIM HEX HD CAD PLT
201	0072501	SCREW 1/4-20 X 1 1/4 CAP,HEX HD,CAD PLT
202	0072661	SCREW 1/2-13 X 2 3/4 CAP,HEX HD,CAD PLT
203	0072670	SCREW 1/2-13 X 4 IN.-3 IN.THD-HEX HD,CAD
206	0073276	WASHER-NO.10- .219 .500 .049 CAD PL STL
207	0073278	WASHER-NO1/4- .281 .625 .065 CAD PL STL
208	0073286	WASHER- 1/2- .531 1.062 .095 CAD PL STL
209	0073273	WASHER NO. 10 LOCK, SPLIT, CAD PLT STL
213	0071504	NUT 10-24 UNC-2B,GRADE 5 STL,CAD PL
214	0071508	NUT 1/4-20 UNC-2B,GRADE 5 STL,CAD PL
215	0081984	NUT 1/2-13 UNC-2B SELF-LCKNG FLNGD CD PL
299	0211793	HARDWARE KIT-MOD 8227DP

Parts List for Model 8227
Feed Mounting Assembly
(Part Number 211771)



NOTE:

1. SCREW ITEM 208 ONTO ITEM 4 COMPLETELY BEFORE SCREWING ITEM 4 INTO ITEMS 1, 3, AND 13.
2. LOCATION OF ITEM 1 AND ITEM 3 MAY BE INTERCHANGED. CONSULT OWANER'S MANUAL FOR CORRECT POSITIONS.

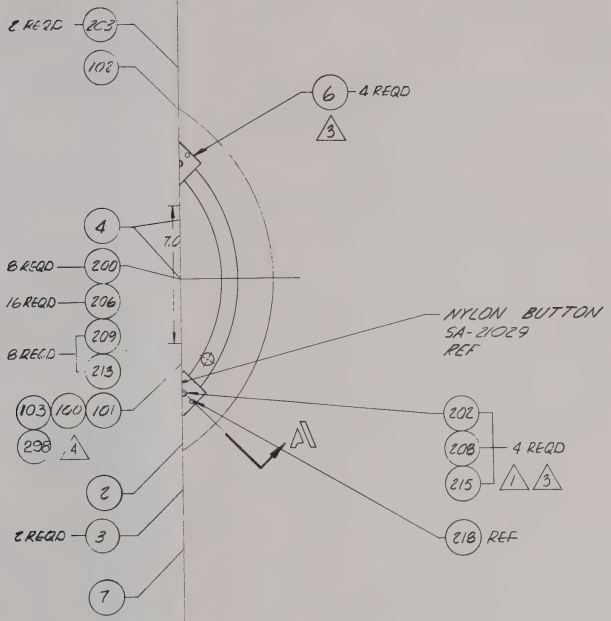
212392-212399D

Figure 7-6. Model 8026 Mount Assembly

ASSEMBLY E212571 ADJ MECH ASSY,4.6 M ANT-MOD 8026

ITEM	COMPONENT	DESCRIPTION
1	0212543	CLAMP PLATE,BEARING-4.6 M MOUNT
2	0212530	BRKT,ADJ MECH,LOWER-4.6 M MOUNT
3	0212544	ADJUSTOR SCREW-4.6 M MOUNT
4	0212533	BAR,CLAMP,UPPER-4.6 M MOUNT
5	0212531	BRKT,ADJ MECH,UPPER-4.6 M MOUNT
6	0212542	CLAMP PLATE,BEARING-4.6 M MOUNT
7	0212532	PLATE,THREADED,ADJ MECH-4.6 M MOUNT
100	0084819	ADHESIVE NUT LOCK LCKNG-RING 50 CC BOT
101	0080332	LUBRICNT GREASE FOR EXPOSED GEARS
102	0070155	BEARING 3/4ID 1.6250D .437WIDE
103	0071554	PIN DETENT 1/4 DIA X 1.00 GRIP STL SHNK
104	0070007	BRAKE CABLE ASSEMBLY
200	0088535	WASHER-NO.10- .219 .500 .049 ZINC PLT
201	0088541	SCREW 10-24 X 3/8 PAN HD, ZINC PLT STL
202	0088165	WASHER NO. 10 LOCK, SPLIT, ZN PLT STL
203	0088525	SCREW 1/2-13 X 1.0 CAP,HEX HD,ZINC PLT
204	0088521	WASHER- 1/2- .531 1.062 .095 ZN PLT STL
205	0088524	SCREW 1/4-20 X 1 1/4 CAP HEX HD,ZINC PLT
206	0088536	WASHER- 1/4- .281 .625 .065 ZINC PLT
207	0088518	NUT 1/2-13 UNC-2B GRADE 5 STL ZINC PLT

Parts List for Strut Adjustor
Assembly
(Part Number 212571)



NOTES:

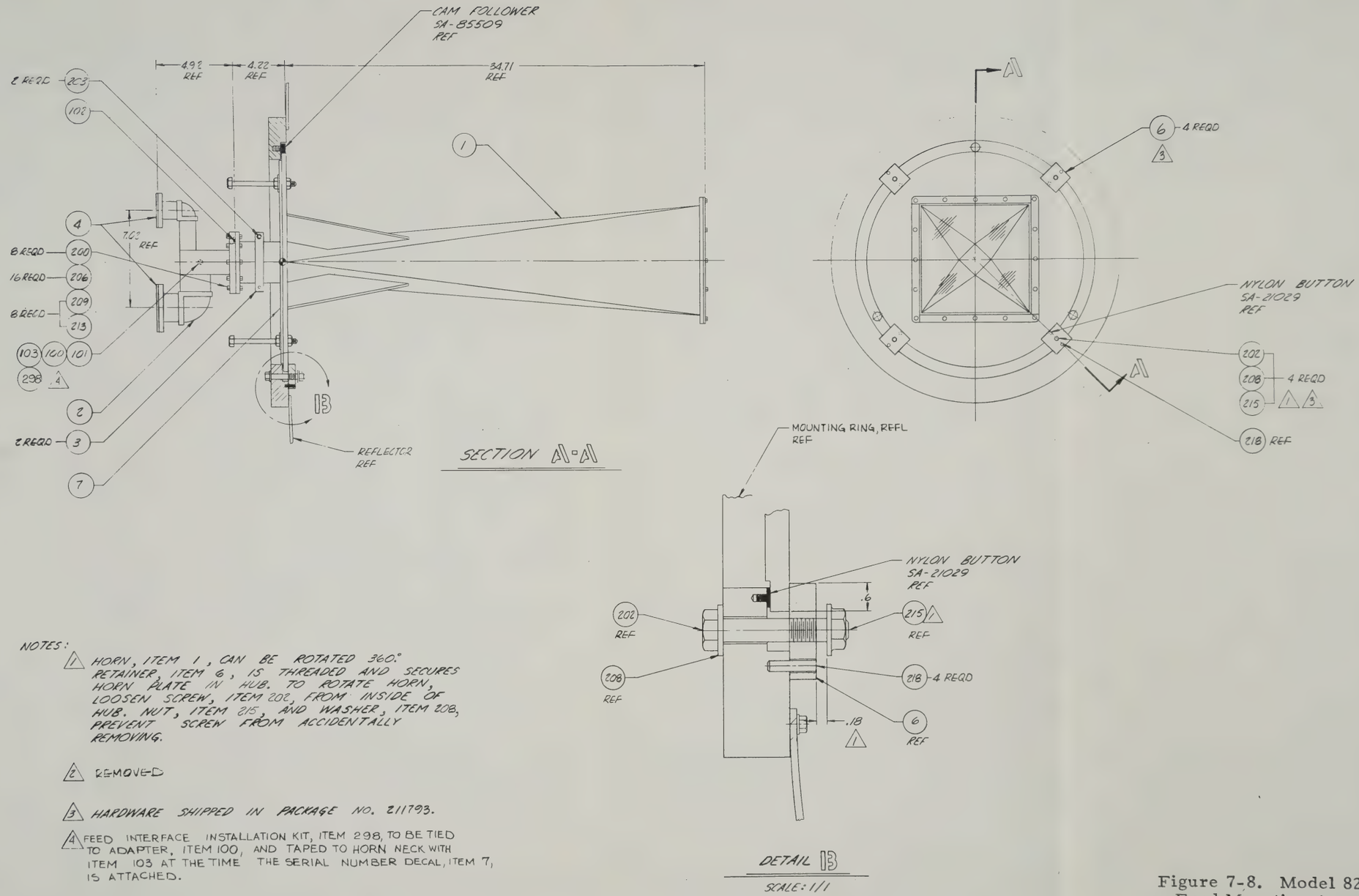
1. HORN, RETAIN HORN LOOSE HUB. PREVE REMOV
2. REMOV
3. HARDW
4. FEED IN TO ADA ITEM IS ATTA

Figure 7-8. Model 8227SP Feed Mounting Assembly

ASSEMBLY E212571 ADJ MECH ASSY,4.6 M ANT-MOD 8026

ITEM	COMPONENT	DESCRIPTION
1	0212543	CLAMP PLATE,BEARING-4.6 M MOUNT
2	0212530	BRKT,ADJ MECH,LOWER-4.6 M MOUNT
3	0212544	ADJUSTOR SCREW-4.6 M MOUNT
4	0212533	BAR,CLAMP,UPPER-4.6 M MOUNT
5	0212531	BRKT,ADJ MECH,UPPER-4.6 M MOUNT
6	0212542	CLAMP PLATE,BEARING-4.6 M MOUNT
7	0212532	PLATE,THREADED,ADJ MECH-4.6 M MOUNT
100	0084819	ADHESIVE NUT LOCK LCKNG-RING 50 CC BOT
101	0080332	LUBRICNT GREASE FOR EXPOSED GEARS
102	0070155	BEARING 3/4ID 1.625OD .437WIDE
103	0071554	PIN DETENT 1/4 DIA X 1.00 GRIP STL SHNK
104	0070007	BRAKE CABLE ASSEMBLY
200	0088535	WASHER-NO.10- .219 .500 .049 ZINC PLT
201	0088541	SCREW 10-24 X 3/8 PAN HD, ZINC PLT STL
202	0088165	WASHER NO. 10 LOCK, SPLIT, ZN PLT STL
203	0088525	SCREW 1/2-13 X 1.0 CAP,HEX HD,ZINC PLT
204	0088521	WASHER- 1/2- .531 1.062 .095 ZN PLT STL
205	0088524	SCREW 1/4-20 X 1 1/4 CAP HEX HD,ZINC PLT
206	0088536	WASHER- 1/4- .281 .625 .065 ZINC PLT
207	0088518	NUT 1/2-13 UNC-2B GRADE 5 STL ZINC PLT

Parts List for Strut Adjustor
Assembly
(Part Number 212571)



NOTES:

1. HORN, ITEM 1, CAN BE ROTATED 360°. RETAINER, ITEM 6, IS THREADED AND SECURES HORN PLATE IN HUB. TO ROTATE HORN, LOOSEN SCREW, ITEM 202, FROM INSIDE OF HUB. NUT, ITEM 215, AND WASHER, ITEM 208, PREVENT SCREW FROM ACCIDENTALLY REMOVING.
2. REMOVED
3. HARDWARE SHIPPED IN PACKAGE NO. 211793.
4. FEED INTERFACE INSTALLATION KIT, ITEM 298, TO BE TIED TO ADAPTER, ITEM 100, AND TAPED TO HORN NECK WITH ITEM 103 AT THE TIME THE SERIAL NUMBER DECAL, ITEM 7, IS ATTACHED.

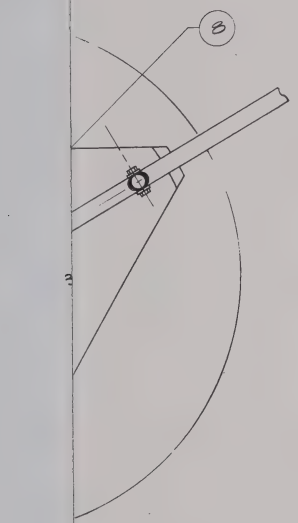
211771A-211779A

Figure 7-8. Model 8227SP Feed Mounting Assembly

ASSEMBLY W211782 SUBREFLECTOR ASSY,4.6 M ANT-MOD 8227S

ITEM	COMPONENT	DESCRIPTION
1	0213165	SUBREFL-4.6 M ANT
2	0211891	SPAR-4.6 M SUBREFLECTOR
3	0211886	CONNECTOR,SPAR-4.6 M ANTENNA
4	0211888	STUD,SUPPORT-4.6 M ANTENNA
5	0212563	STANDOFF,MOUNTING PLATE-4.6 M ANTENNA
6	0211887	SUPPORT,SUBREFLECTOR-4.6 M ANTENNA
7	0150868	PLATE,TUNING-MODEL 8226S
8	0211635	SERIAL NO. LABEL INSTALLATION PROCEDURE
200	0072504	SCREW 1/4-20 X 1 1/2 CAP,HEX HD,CAD PLT
201	0073278	WASHER-NO1/4- .281 .625 .065 CAD PL STL
202	0071508	NUT 1/4-20 UNC-2B,GRADE 5 STL,CAD PL
203	0072578	SCREW 3/8-16 X 1.0 CAP,HEX HD,CAD PLT
204	0073282	WASHER- 3/8- .406 .812 .065 CAD PL STL
205	0071513	NUT 3/8-16 UNC-2B,GRADE 5 STL,CAD PL
206	0072496	SCREW 1/4-20 X 7/8 CAP,HEX HD,CAD PLT
207	0083523	SCREW 10-32 X 3/4 PAN HD, CAD PLT STL
208	0073276	WASHER-NO.10- .219 .500 .049 CAD PL STL
209	0073273	WASHER NO. 10 LOCK, SPLIT, CAD PLT STL
210	0083457	NUT 10-32 PLAIN-HEX, CAD PLT STL
211	0072488	SCREW 1/4-20 X 1/2 CAP,HEX HD,CAD PLT
299	021258C	HARDWARE KIT MODEL 8227S

Parts List for Model 8227S
Subreflector Assembly
(Part Number 211782)



211782B-211789B

Figure 7-9. Model 8227S
Subreflector Assembly

7-25/7-26

25A091G

ASSEMBLY W211782 SUBREFLECTOR ASSY,4.6 M ANT-MOD 8227S

ITEM	COMPONENT	DESCRIPTION
1	0213165	SUBREFL-4.6 M ANT
2	0211891	SPAR-4.6 M SUBREFLECTOR
3	0211886	CONNECTOR,SPAR-4.6 M ANTENNA
4	0211888	STUD,SUPPORT-4.6 M ANTENNA
5	0212563	STANDOFF,MOUNTING PLATE-4.6 M ANTENNA
6	0211887	SUPPORT,SUBREFLECTOR-4.6 M ANTENNA
7	0150868	PLATE,TUNING-MODEL 8226S
8	0211635	SERIAL NO. LABEL INSTALLATION PROCEDURE
200	0072504	SCREW 1/4-20 X 1 1/2 CAP,HEX HD,CAD PLT
201	0073278	WASHER-NO1/4- .281 .625 .065 CAD PL STL
202	0071508	NUT 1/4-20 UNC-2B,GRADE 5 STL,CAD PL
203	0072575	SCREW 3/8-16 X 1.0 CAP,HEX HD,CAD PLT
204	0073282	WASHER- 3/8- .406 .812 .065 CAD PL STL
205	0071513	NUT 3/8-16 UNC-2B,GRADE 5 STL,CAD PL
206	0072496	SCREW 1/4-20 X 7/8 CAP,HEX HD,CAD PLT
207	0088523	SCREW 10-32 X 3/4 PAN HD, CAD PLT STL
208	0073276	WASHER-NO.10- .219 .500 .049 CAD PL STL
209	0073273	WASHER NO. 10 LOCK, SPLIT, CAD PLT STL
210	0083457	NUT 10-32 PLAIN-HEX, CAD PLT STL
211	0072488	SCREW 1/4-20 X 1/2 CAP,HEX HD,CAD PLT
299	021258C	HARDWARE KIT MODEL 8227S

Parts List for Model 8227S
Subreflector Assembly
(Part Number 211782)

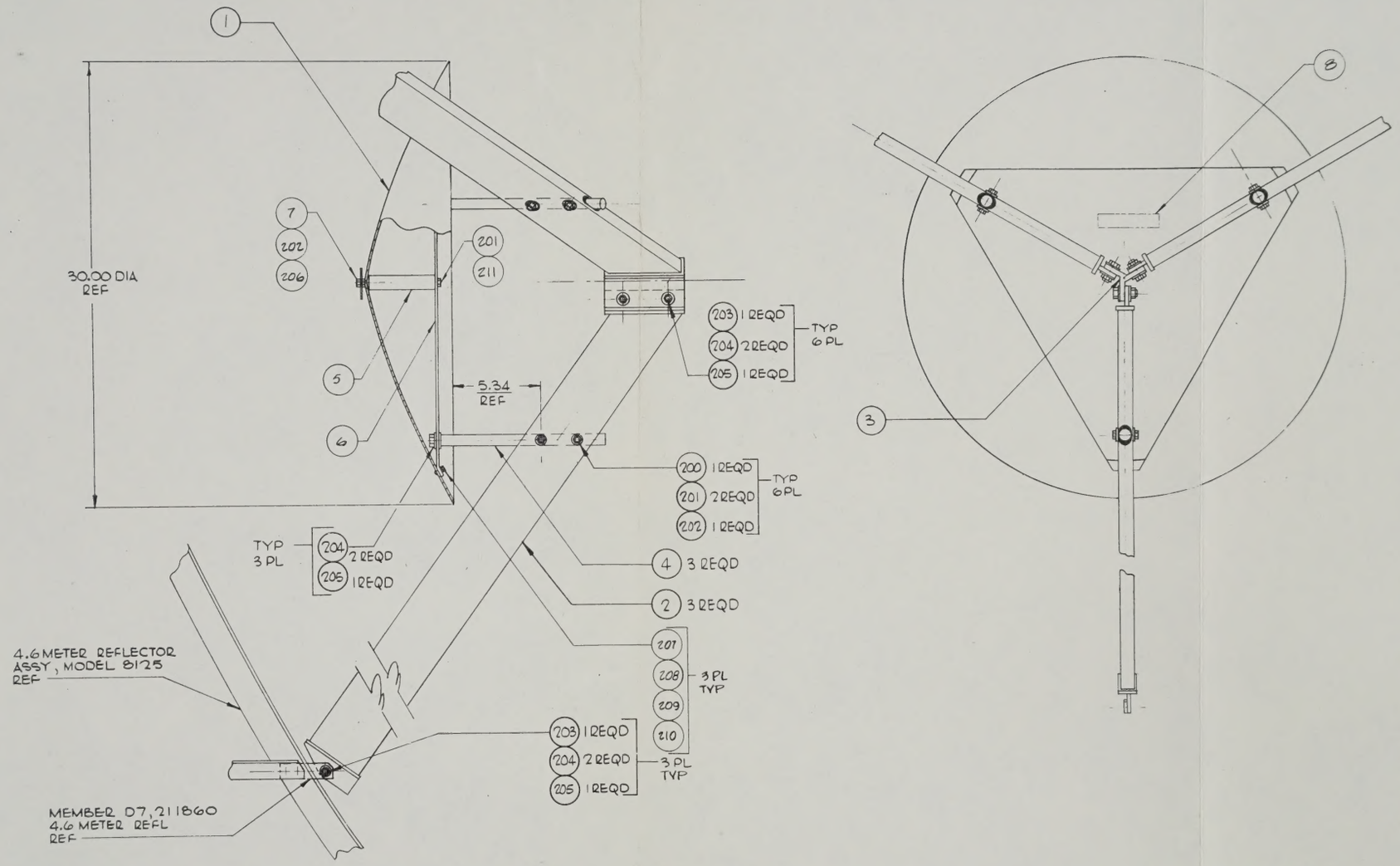


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Figure 7-9. Model 8227S Subreflector Assembly

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